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ABSTRACT

Before World War II, more than one million people took part in literacy education programs in Thailand. Because of the chaos caused by the war, however, and the subsequent disruptions of the country's life, fewer adults were taking part in literacy efforts. During the late 1960s and the 1970s, an increased emphasis was placed on literacy education for adults. A case study of the efforts of this program in Educational Region 8 in northern Thailand showed the activities and achievements of the program. (Region 8 was chosen for study because of its relatively high percentage of adult illiterates.) The Region 8 program concentrated on increasing literacy education in rural areas by establishing provincial lifelong education centers using mobile units, walking teachers, radio correspondence, and village level interest groups and reading centers. It also attempted to expand functional literacy offerings for non-native speakers, to stress the functional nature of literacy education, and especially to stress short-term vocational courses intertwined with literacy efforts. To this end, a practical curriculum was developed focusing on nutrition, family planning, village cooperation, and economic self-sufficiency. Functional literacy texts were created and revised periodically. Although several evaluation studies of the functional literacy program in Region 8 showed conflicting results, there did seem to be some improvement in participants' reading and mathematics skills, especially among those people whose villages had reading centers. (KC)

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THAILAND's functional literacy programme: a case study of activities in Educational Region 8

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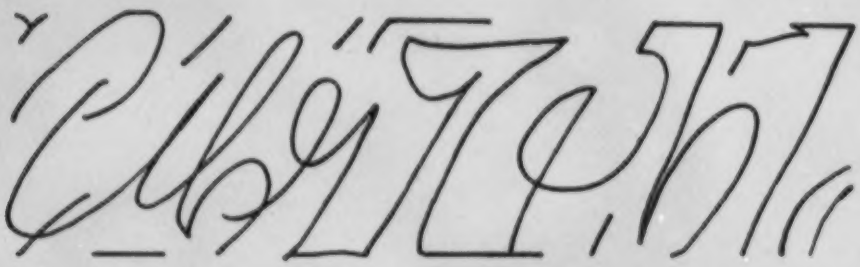

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The struggle against illiteracy in Asia and the Pacific 2

THAILAND's functional literacy programme: a case study of activities in Educational Region 8

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FOREWORD

In the recent past several Member States in Asia and the Pacific have committed themselves to the task of eradicating illiteracy within their respective countries. Since a few of them have achieved considerable success, the Unesco Regional Office in Bangkok felt that it would be useful to disseminate the information regarding the national campaigns, so that they would serve as a guide and model to others. With this end in view the series entitled *The struggle against illiteracy in Asia and Oceania* is now being published. The first of the series, which is already in print, is entitled *The elimination of illiteracy in the Socialist Republic of Viet Nam.*

The present publication, the second in the series and entitled *Thailand's functional literacy programme,* is an in-depth study of the activities of the Ministry of Education in northern Thailand, particularly the area which comprises the Eighth Educational region. This region is of particular interest since it was here that the Functional Literacy Programme began as an experiment. The area lies on a higher latitude than the rest of the country and certain parts are dominated by minority tribal groups. In this study the author discusses the special problems of the area, like national integration and the improvement of socio-economic conditions, and shows how the Ministry attempted to solve these by the implementation of its Functional Literacy Programme.

The author, Mr. Sunthorn Sunanchai, is the former Director of Division of Adult Education, Ministry of Education, and is currently an instructor in the Supervisory Unit of the Department of Teacher Training, Ministry of Education, Government of Thailand.

PREFACE

The government of Thailand began systematic efforts to combat illiteracy in 1940. During the few years before Thailand became heavily involved in the Second World War more than one million adults completed basic literacy courses and, as a result, were considered literate. After the war the enrolments in these and subsequent courses declined sharply and, in the past 30 years, only about 300,000 individuals have passed through the various basic literacy programmes offered by the government.

Moreover, results of research and other available evidence indicated that many of the adults completing these basic programmes and receiving certificates had not gained practical literacy skills. The reasons for programme shortcomings are varied and complex, but can be grouped into three broad areas. First, programme planners had assumed that adult learners were conscious of the value of being literate, i.e., aware of the immediate utility of such skills. Second, among these planners there was little early concern with content relevance. Later, when such concerns became widespread, they resulted primarily in inconclusive debate as to what was relevant or, how relevance could be determined. Finally, there were persistent and wide gaps between the programmes as concepts and the programmes in operation.

With the advent of the Functional Literacy Programme in 1970, planners in the Adult Education Division concentrated on these problem areas and sought to develop an approach that would: (1) create a consciousness of the value of literacy, (2) offer content based on learners' needs and, therefore, related to the learners' lives, (3) utilize techniques that would increase learner participation in the instructional process, and (4) provide opportunities for adults to enhance their problem-solving and occupational skills, to have access to current technical knowledge and information and, in the process, to develop literacy and numeracy tools. As a result, a programme that had been in effective for 30 years was resuscitated. Although present enrolments do not match pre-war peaks, the situation today is rather encouraging.

Thailand's functional literacy programme

At present approximately 18 per cent of the Thai population over 10 years of age is considered illiterate, that is, unable to write their name or read a simple sentence in any language. While this figure is not too high when compared to rates in many other countries, it does amount to over five million people. More serious is the fact that this number includes significant numbers from all age groups not only from the older age groups. The question of functional skills too has to be solved. How many of these people declared literate on the basis of meeting the prescribed minimum standards, do, indeed, possess the literacy skills required to function effectively in contemporary Thailand. For example, how many can read and fill the forms at the district office? How many can read and understand instalment plans, government announcements, newspapers and instructions for the use of fertilizers or medicine? While studies of 'functional' literacy skill levels do not exist, it is reasonable to assume that an even greater percentage of the population does not meet any such 'functional' standards. This assumption does find some support in 1968 research data indicating that 33 per cent of the grade IV graduates relapse into illiteracy within a few years after leaving school.[1] For these reasons, then, adult functional literacy programmes in Thailand remain critically important.

Recognizing these difficulties, the government has recently stressed the need for a more equitable distribution of educational opportunities, and given a high priority to programmes designed to serve groups who have lacked traditional educational opportunities. For example, the 1977 National Education Scheme includes the following provisions:

> "No. 14 - It is urgent that the state establish and support various types of non-formal education programmes in order to provide the population with opportunities for education throughout their lifetime. It is expected, in particular, that these programmes will be useful for those individuals who have never had the opportunity to enter the formal school system."
>
> "No. 15 - The state should organize and support wide-ranging educational services for the poor and the physically, socially, and emotionally handicapped."

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1. Thailand. Ministry of Education. Department of General Education. *Research report: the literacy status of Prathom (Grade) 4 graduates*. Bangkok, Ministry of Education, 1969. passim.

With respect to adult education these broad goals were translated into major programmes focused on specific objectives.

1. Increase the percentage of rural adult education services, until a ratio of 80 per cent rural to 20 per cent urban/provincial town is achieved, by establishing provincial lifelong education centres[1] which will utilize mobile units, walking teachers, radio correspondence and village level interest groups and reading centres to serve rural populations;

2. Expand functional literacy programmes and opportunities for non-native speakers such as the Malay-speaking population in the South and the hill tribe minorities in the North to develop Thai language skills and an understanding of Thai culture and society;

3. Increase the practical (functional) nature of second-chance, continuing education programmes at the upper primary and lower secondary equivalency levels;

4. Stress short-term vocational courses and activities for the rural population focusing on: (a) agriculture, appropriate technology, and other related subject areas that will enable villagers to upgrade their current occupational practices and supplement their incomes and (b) skill areas that will aid under-employed villagers to secure either more gainful employment or the basic pre-requisites needed to enter full-scale job training programmes.

Most of these adult education activities that are currently receiving significant attention and finances, draw many of their philosophical directions from the Functional Literacy Programme. Many, in fact, are conceived as supplementary or complementary to it. Given these circumstances, then, a case study of this programme takes on added significance. It is appropriate, too, that the case study is focused on activities in northern Thailand, particularly the seven provinces which make up the eighth Educational Region, for it was in this area that the Functional Literacy Programme began as an experiment.

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1 An official English language term for these centres has yet to be established. A literal translation of the Thai term is People's Education Centre, but they are more frequently referred to as Lifelong Education Centres in the Division's English language materials.

Before closing this preface I wish to express my deep gratitude to Mr. Somprasong Withayagiat, the head of the Functional Literacy Project Unit of the Adult Education Division and his staff for their assistance in compiling the data used in this study. My sincere thanks are due to my colleagues and staff who spent long hours on the translation and typing of this manuscript.

Sunthorn Sunanchai, Former Director
Adult Education Division
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Part I - BACKGROUND

A brief history of literacy education in Thailand

Adult education in Thailand has been organized and administered by the Adult Education Division, Ministry of Education, ever since the Division's inception in 1940. Since that time the goals and approaches guiding government-sponsored adult education literacy programmes have changed periodically. An overview of these programmes and their evolution can best be presented by describing events occurring in the following four periods; 1940-1945, 1947-1964, 1965-1967, and 1968 to the present.

Period I - 1940-1945

According to the census conducted in 1937 by the Ministry of Interior, 68.8 per cent of the total population aged 10 and above was illiterate.[1] In 1940 the Thai government embarked on a campaign to promote literacy and, at the same time, to inculcate a stronger sense of civic responsibility and democracy among the adult population. To spearhead this effort the government established an Adult Education Division within the Ministry of Education.

To carry out the campaign the Ministry of Education recruited all available teaching personnel from public (national and municipal) and private elementary schools to teach the courses it had designed especially for this programme. Other government departments were also involved as the cabinet instructed them to support the effort fully.

The full programme consisted of 'Preliminary' and 'Final' courses, each six months long. The curriculum emphasized Thai language skills (reading, transcription, writing, and composition), numeracy, civics, moral education, geography, history, and health. The classes which were conducted three to five days a week, and one to two hours each day were held in the evening to enable working people to attend. Second and fourth grade equivalency certificates were awarded to those adults who passed the final examinations of the Preliminary and Final courses respectively.

---

1. The standard used to determine literacy was completion of at least two years of primary education.

During the first three years of the campaign the literacy rate increased by 20.49 per cent, as 1,409,688 graduates of the two-cycle programme were pronounced literate. However, while the initial results of the campaign were impressive, the severe economic depression that engulfed the country at the end of the Second World War forced the government to reduce the intensity of its effort and attendance subsequently declined.

Period II - 1947-1964

By 1947 the Thai Government resumed its efforts to promote adult education, adopting at this time Unesco's model of Fundamental Education. As defined by Unesco, Fundamental Education was to cover all the basic knowledge people should possess and include reading, writing, arithmetic, geography, history, civics and morality, and vocational education. In a sense, then, Fundamental Education was essentially elementary plus vocational education for adults. For this new programme the Adult Education Division set the following objectives:

1. promote literacy and occupational skills,
2. foster responsible citizenship in a democratic society,
3. improve living standards, and
4. encourage the profitable use of spare time.

As a result, the Division added vocational activities such as the following to the basic literacy programmes:

1. Agriculture - The topics covered included vegetable gardening, animal husbandry (including castration techniques and disease control) and basic horticulture (focusing on the care and propagation of fruit trees).
2. Handicrafts - Teachers could choose any handicraft practised locally. Among the activities were embroidery, sewing, basket-making, weaving, pottery, etc.
3. Home economics - Basic home-making and cooking.
4. Fisheries - Developing and maintaining fish ponds.
5. Commerce - Elementary accounting and marketing.
6. Any vocational training useful to the community.

In addition, the Division began to support adult vocational schools and academically-oriented general education programmes above the literacy level. Both these programmes were conducted in the evenings and utilized the facilities and personnel of the regular schools, both government and private. The system and the curriculum were identical to those of the regular school.

With respect to these programmes the Division provided little more than financial support to the principals and teachers and occasional supervision. The Division initiated programmes to establish public libraries at the district level and mobile audio-visual education/information services operating from the provincial capital. Both these efforts were designed to provide the rural population with up-to-date information on new developments.

Mid-way through this period the government established the Thailand-Unesco Fundamental Education Centre or TUFECS at Ubol Province in the northeastern part of the country. This centre focused its attention on rural development and influenced the Adult Education Division to concentrate its energies in the same direction. By the late 50s, the Adult Education Division had adopted the following programme objectives:

1. improve rural living standards;
2. provide vocational and general (academic) education opportunities for adults in co-operation with other government agencies;
3. promote educational opportunities for rural residents through mobile vocational units and expanded public education (audio-visual presentations) programmes;
4. operate public libraries and develop reading materials for adults;
5. produce and distribute audio-visual materials for use in education/information programmes;
6. develop responsible citizenship and occupational skills; and
7. conduct research and training programmes.

With respect to the Division's literacy efforts during this period, the Fundamental Education approach proved to be less than effective. Analysts attributed its weaknesses to a lack of necessary equipment and qualified teachers for the

vocational activities. For whatever reasons evidence indicates that the teachers directed their efforts largely to literacy and civic education and neglected the vocational component. Nonetheless, during the 1947-1964 period, 170,730 more adults completed literacy programmes.

Period III - 1965-1967

Despite its operational handicaps the Fundamental Education approach to literacy and adult education continued. In 1963 the TUFEC lost its rural development training functions to the newly created Community Development Department in the Ministry of Interior and subsequently served only as a training centre for local leaders and under-credentialled primary school teachers.

In 1965 the Division embarked on a major reform and expansion effort in its post-literacy programmes in response to increased demands from urban and provincial town residents for a general education at higher levels, i.e., those equivalent to grades VII, X, and XII (elementary and lower and upper secondary school leaving certificates respectively). The courses developed had a heavy academic orientation and were organized as follows:

Table 1. Urban adult education programmes (1950-60)

General adult education level	In-school grade equivalent	Duration of study (months)
I	2	6
II	4	6
III	7	18
IV	10	18
V	12	24

This second-chance system served largely the young adults in the urban areas and provincial towns who sought the equivalency certificates which might lead to government service. In the rural districts and villages the Fundamental Education programme remained the primary education service provided by the Adult Education Division.

Table 2. Rural adult education programmes (1950-60)

Fundamental Education Course	In-school grade equivalent	Duration of study (months)
Preliminary	2	6
Final	4	6

Period IV - 1968 to the present

The change during this period was a direct result of a Unesco initiative. In November 1965, Unesco invited the Ministers of Education - including the Thai Minister of Education and his delegation - to a World Conference on the Eradication of Illiteracy in Teheran, Iran. The resolution of this meeting urged governments to add vocational training related to community needs to literacy programmes, arguing that only with such additions could a learner develop skills needed to improve his living conditions.

This work-oriented functional literacy model adopted at the World Conference did not, in fact, separate literacy education from vocational education as was the case with the fundamental education concept. On the contrary in this model literacy content and vocational training were to be interwoven and integrated. For example, if the learners were engaged in farming, lesson content would be drawn from that occupation. The learners, consequently, acquired both literacy skills related to farming as well as knowledge and information on farming.

The Adult Education Division, in response to Unesco's resolution, carried out an experiment in Lampang in Northern Thailand from 1 August to 31 December 1968. The work-oriented functional literacy class operated five days a week and two and one-half hours a day. Ten classes were opened in the capital district, another ten in Ngao District. The programme provides 452 more adults with an opportunity to develop literacy skills.

It was clear to Thai educators that the experimental work-oriented functional literacy approach was more effective than earlier efforts. Nonetheless, many difficult problems, new as well as old, were encountered. Among the most important were:

1. Teachers' ability to handle vocational instruction. As in previous programmes most of the literacy teachers were

not trained vocational educators and, were therefore unable or reluctant to teach the vocational subjects. For example, the planner's fears that teachers with little knowledge of or experience in agriculture would teach this subject to experienced farmers were unreasonable, particularly in a rural Thai cultural setting where teachers are regarded so highly for the superior knowledge they possess. Under such circumstance teachers were most reluctant to demonstrate their lack of knowledge of agriculture by teaching it to experienced farmers, and, consequently, concentrated their efforts on the literacy and numeracy components of the programme.

2. Shortage of resource personnel. Project plans called for inviting local resource people (e.g., the district agricultural extension agent, health worker, veterinarian, and community development worker) to teach vocational subjects related to their backgrounds and to give additional instruction in the literacy classes on these same subjects. In actual practice, however, such resource people were not available in adequate numbers. When they did exist, transportation was difficult to arrange and the resource people considered the trip to the rural schools too time-consuming and, since most of the adult schools operated at night, too risky. In short, there were insufficient incentives and too many disincentives within the proposed system. Moreover, as is the case in many other development efforts, local co-ordination between various government agencies was more easily planned than executed.

3. Textbook-orientation. Due to limited technical skills and knowledge and their inability to demonstrate techniques or give practical advice in the vocational subject areas, the teachers had to rely heavily on textbooks. The learners, therefore, received little instruction in vocational areas and had few opportunities to develop skills through practice.

Because of these and other limitations of the work-oriented model, the Adult Education Division began to develop a new model in 1970. The new model was constructed as a complete system, starting with the formulation of a working philosophy (including objectives) and a set of assumptions about adult learners and their situation in the Thai socio-cultural context. Principles derived from ongoing discussions of these matters and from feedback data provided and continue to provide the basis for developing instructional processes (and teacher-training strategies), curricula,

learning materials, and supervisory and evaluation systems. The newly designed Functional Literacy Programme was first tried out in Lampang and Phrae in Northern Thailand in 1970. Later the Division expanded to all provinces in the Eighth Educational Region and, eventually, to a number of provinces in other regions as well. Compared with the former models used in Thailand, this new model appears to be more practical and has so far met with considerable success.

The in-depth description of the Thai Functional Literacy model in the Eighth Educational Region (Northern Thailand) which follows will make clear both the extent of and reasons for this success.

The Eighth Educational Region

The Eighth Educational Region is composed of seven northern provinces: Chiengmai, Chiengrai, Phrae, Nan, Mae Hong Sorn, Lampang and Lamphun.

This region lies at a higher altitude than the rest of the country and contains mountain ranges bordering the Lao People's Democratic Republic frontier in the North and East, Burma in the West and splitting the region down the middle on a north-south axis. The Ping, Wang, Yom, and Nan Rivers all flow south from this Northern region, meeting eventually to form the Chao Praya River. They have great importance for the people along their routes, as, moonsoon swollen, they leave annual deposits of rich alluvial soil on the adjacent lowlands.

Demographic data on this region is provided in Tables 3 and 4. All figures are from the 1970 census.

Table 3. Population by province, 1970

Province	Male	Female	Total
Chiengrai	563 064	548 543	1,111 607
Chiengmai	518 391	508 059	1,026 450
Nan	155 260	155 474	310 734
Phrae	182 629	182 880	365 509
Mae Hong Sorn	52 598	51 562	104 160
Lampang	292 739	290 639	583 378
Lamphun	156 361	154 475	310 836
Total	1 921 042	1 891 632	3 812 674

Source: 1970 Population and Housing Census, Northern region, National Statistical Office, Office of the Prime Minister.

Table 4. Literacy among the population 10 years of age and older, 1970

Province	Population			Numbers and percentage of literate by sex					
	Total	Male	Female	Total	%	Male	%	Female	%
Chiengrai	760 418	385 558	374 865	495 698	65.2	285 628	74.1	210 070	56.0
Chiengmai	755 423	381 708	373 604	531 968	70.4	293 276	76.8	238 692	63.8
Phrae	261 205	129 732	131 473	200 958	76.9	109 672	84.5	91 286	69.4
Nan	209 535	103 908	105 627	135 674	64.8	75 379	72.5	60 295	57.0
Mae Hong Sorn	73 188	37 090	36 098	29 167	39.9	16 915	45.6	12 252	33.9
Lamphun	224 719	112 711	112 008	168 012	74.8	91 660	81.3	76 352	68.1
Lampang	413 701	207 021	206 680	286 724	69.3	160 490	77.5	126 234	61.0
Total	2 698 083	1 357 728	1 340 355	1 848 201	68.5	1 033 020	76.1	815 181	60.8

Source: National Statistical Office, *Quarterly Statistics Journal*, 19th year, 3rd issue, September 1971. p. 15

Table 5. Increase in population by sex, and number of households and average annual rate of growth, 1969-70

Province	Increase in population			Increase in number of households	Average annual rate of growth
	Total	Male	Female		
Chiengrai	1,986	551	535	193	2.96
Chiengmai	1,024	518	506	178	2.52
Phrae	365	182	183	68	2.00
Nan	310	155	155	52	2.55
Mae Hong Sorn	104	53	51	21	2.56
Lampang	616	308	308	114	2.71
Lamphun	318	160	158	59	2.45
Total	4,723	1,927	1,896		2.70

Source: *Statistical Yearbook*, Thailand No. 29, p. 38

Population growth in Region 8 (2.70%) is slightly higher than the rate for the nation as a whole (2.66%).*

Comparative development statistics by region are difficult to obtain. However, gross indicators where they do exist show the Northern region to be relatively well-off. With the exception of Mae Hong Sorn and, perhaps, Nan the provinces within the Eighth Educational Region share in this relative prosperity. For example, data related to agriculture indicate that this region leads all others in terms of rice yield per *rai* (.4 acre) and percentage of irrigable land irrigated.

Table 6. Comparison of data related to agriculture by region*

Item	North	South	Northeast	Central
Rice production yield per rai (Kg.) 1974	349.4	221.6	235.6	307.3
Percentage of irrigable land	92	46	41	86
Irrigated 1973				

* Statistics released recently by the Prime Minister's Office put the national annual rate at 3.5%

Although accurate data on land tenure is lacking, information is available on the number and size of land holdings in the seven provinces in the region (see Table 7).

Table 7. Number and area of provincial holdings, 1963

Province	Number of holdings	Total area (rai)*	Average area per holding (rai)
Chiengrai	112,725	1,246,595	11.06
Chiengmai	106,795	807,389	7.56
Nan	31,593	195,844	6.20
Phrae	37,491	311,363	8.31
Mae Hong Sorn	11,227	82,579	7.36
Lampang	61,693	457,428	7.41
Lamphun	35,584	283,933	7.98

* 1 rai = .4 acre

Chiengmai province, in particular the Chiengmai municipality, is the hub of the region. The municipality has the highest revenue surplus of any area in the country. The province covers 22,949 square kilometres and contains 1,226 villages. Rice cultivation dominates the agricultural sector as the rich alluvial flatlands on either side of the Ping River provide ideal conditions for rice. In many areas double cropping is possible. Other crops, often grown on the mountain slopes, are onions, garlic, potatoes, coffee, peanuts and soyabeans as well as longans, oranges, coconuts, and both local and Virginia tobacco. Animal husbandry and pisciculture are practised. The animals raised include swine, cattle, buffalo, duck and chicken.

Food processing, including some export-oriented items, and agricultural light industries and services have increased in recent years following in several cases vertical control, agro-business patterns. Mining (tungsten) and lumbering and increasingly, tourism are also important.

The province of Chiengrai covers 11,750 square kilometres and is divided into 15 districts, 102 tambons, and 1,162 villages. Its geographical and climatic conditions are highly suited for agriculture. Glutinous rice is the main crop

and staple diet, while tobacco (both native and Virginia strains), onions, garlic, chili peppers, soyabeans, peanuts and sesame, together with the raising of cattle and buffalo as livestock provide income and dietary supplements. Due to the presence of extensive forested areas, lumbering is also an important occupation. Light industries include weaving, tobacco-curing, and rice milling, while tungsten mining is also an important source of earnings.

The poorer provinces in the region, Mae Hong Sorn (on the Burmese border) and Nan and Phrae (on the Laos border), are smaller in size and population is less dense. Rice cultivation, while important, is not practised on a similar scale as in the two more prosperous provinces. Lumbering, mining (wolfram, gold, sulphur, tungsten) and the cultivation of fruits, cotton, jute, sesame, beans and tobacco are also important economic activities.

Like Chiengmai and Chiengrai the mountain areas and foothills are dominated by minority tribal groups (Meo, Yao, Karen, Lahu, Lisu, Akha, etc.). These non-Thai groups are often viewed as a major security concern and are suspected of being involved in the narcotic trade. Hence considerable resources are devoted to programmes and projects heavily assimilative in nature.

Lampang and Lamphun provinces in the southern part of the region have characteristics more similar to the central region. Rice cultivation is extensively practised with double cropping frequent. Mining (flourite, manganese, lignite, antimony, and tin) is small in scale but important.

Adult education programmes in Educational Region 8: an overview

Functional literacy programmes

1. The regular functional literacy programme (classroom based)

In 1971 the Adult Education Division initiated the experimental functional literacy programme in the northern provinces of Lampang and Phrae. The main reason for selecting these two provinces was their relatively high rate of illiteracy. An additional consideration was that the local education authorities in Lampang were well prepared to undertake the necessary tasks with their previous experience with the work-oriented functional literacy programme.

The programme began with ten classes in each of the two provinces. During the second year, classes were opened

Table 8. Statistics on adult education functional literacy classes in the Eighth Educational Region for the period 1971-1975

Year	Province	Classes	Teachers	Students enrolled			Students graduated		
				Male	Female	Total	Male	Female	Total
2514 (1971)	Lampang	10	10	154	49	203	125	40	165
	Phrae	10	10	87	133	220	62	105	167
	Total	20	20	241	182	423	187	145	332
2515 (1972)	Lampang	27	27	315	156	471	259	132	391
	Phrae	17	17	211	167	378	165	143	308
	Chiengmai	14	14	207	123	330	141	98	239
	Chiengrai	4	4	53	27	80	33	19	52
	Lamphun	12	12	149	112	261	124	87	211
	Nan	14	14	201	165	366	113	78	191
	Mae Hong Sorn	5	5	67	38	105	46	23	69
	Total	93	93	1 203	788	1 991	881	580	1 461
2516 (1973)	Lampang	36	36	472	303	775	381	204	585
	Phrae	13	13	200	178	378	108	123	231
	Chiengmai	23	23	201	178	379	191	130	321
	Chiengrai	20	20	302	213	515	223	151	374
	Lamphun	19	19	287	183	470	251	152	403
	Nan	14	14	234	115	349	168	83	251
	Mae Hong Sorn	6	6	88	37	125	64	17	81
	Total	131	131	1 784	1 207	2 991	1 386	860	2 246
2517 (1974)	Lampang	36	36	454	284	738	419	265	684
	Phrae	17	17	272	169	441	220	125	345
	Chiengmai	25	25	341	193	534	319	175	494
	Chiengrai	20	20	316	184	500	191	106	305
	Lamphun	7	7	85	34	119	79	29	108
	Nan	24	24	321	215	536	199	153	352
	Mae Hong Sorn	5	5	54	64	118	26	28	54
	Total	134	134	1 843	1 143	2 986	1 461	881	2 342
2518 (1975)	Lampang	30	30	366	237	603	295	200	495
	Phrae	20	20	261	193	454	256	187	443
	Chiengmai	20	20	310	135	445	298	116	414
	Chiengrai	32	32	468	327	795	161	234	395
	Lamphun	8	8	81	66	147	47	47	94
	Nan	24	24	212	121	333	149	85	234
	Mae Hong Sorn	5	5	77	40	117	43	29	72
	Total	139	139	1 775	1 119	2 894	1 249	898	2 147

in all seven provinces of the Eighth Educational Region. Table 8 provides statistical details on programme expansion in this region during the 5-year period under study.

2. The walking teacher functional literacy programme

To complement the classroom-type functional literacy activities, the Division began a 'walking teacher' programme in 1975. The goal of this programme is to provide literacy education in rural areas where no other facilities or resources (e.g., primary school and teacher) for education exist. To become a walking teacher, an individual must possess at least a 10th grade education and undergo a special pre-service training programme. These teachers must organize at least two classes per day (involving from 3 to 25 students during five days of the week in one or several villages. During their spare time the teachers take part in or support other community development activities. When literacy needs in one area have been met, the teacher moves to another area.

3. Hill-tribe/walking teacher functional literacy programme

A more recent programme that is being conducted in the Northern region is the functional literacy programme for hill tribes. These tribes include the Meo, Karen, Yao, Lisu and Lahu and number approximately 300,000. The tribal people differ culturally from the Thai. Most of them do not speak Thai well and, consequently, their contacts with the Thai population often bring frustration if not serious misunderstandings. Many of these tribes cultivate opium as a cash crop contributing to the international and national narcotics problem. Increasingly, opium addiction among these producers is becoming a serious problem as well. In addition, the swidden agricultural practices of some tribes have resulted in the belief that they are responsible for the destruction of large areas of forest in the north of Thailand.

The adaptation of the regular walking teachers programme to the hill tribes necessitates a curriculum especially designed to respond to their particular conditions and problems. Employing bilingual techniques and teachers from the tribes themselves, the course takes from six to seven months to complete and involves a total of 250-300 hours of instruction. The schedule of instruction is flexible, depending on the convenience of the students. In 1977 this curriculum was tried out in six different Meo villages in Chiengmai and Nan provinces. The feedback from this initial effort has brought about significant changes in the plans

and approaches to be used in expanded efforts in the 1978 fiscal year.

These, then, are the three types of functional literacy programme operating in the Northern region[1] In each the overall approach -

- is based on earlier experiences of the Division and structured by a view of man and a philosophy of education heavily influenced by progressive interpretations of Thai Buddhism;[2]
- seeks to provide learning activities focusing on the needs and conditions of the rural population; and
- utilizes techniques that motivate adult learners to examine their living conditions, identify problems and their causes, seek alternative solutions, and select a course of action based on an analysis of their own experiences and resources, their community context, and the best technical knowledge available to them.

The operations of the functional literacy programme regardless of type, are guided by the following regulations.

1. Students must be at least 15 years of age, have not completed the lower cycle of primary school (grade IV), and have 'sufficient maturity and interest' to preclude the occurrence of problems during their studies.
2. Schools should be located in areas where illiteracy is high and community interest sufficient. A minimum of 25 students per class is required. While classes can be held at any convenient place, there should be at least three within the same general

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1. A fourth programme exists on an experimental scale in several other regions. This programme utilizes Teachers' College students who are completing their practice-teaching requirements.

2. For an excellent statement in English of these Buddhist philosophical influences see, Thailand. Ministry of Education. Adult Education Division. *Non-formal education for national harmony and development: a project for the development of locally relevant adult education programs*. Bangkok, Ministry of Education, 1974, Part 2, p. 6-9.

area to allow for appropriate supervision. The Department of General Education approves all requests for establishing adult schools.

3. Teachers must come from the community where they will teach or have taught there before. They must be old enough to teach adults and have the desire to do so. Prospective teachers must possess at least an upper secondary school leaving certificate (grade XII) or have had five years teaching experience and demonstrated the ability to teach adults. All must complete a special training course organized by the regional education authorities or the Adult Education Division.

4. Budget is allocated by the Adult Education Division to each participating province to cover the following costs:

   a) Teachers' salaries; 20 baht per hour x 200 hours or 4,000 baht per teacher per course.

   b) Paper, chalk, and other supplies; 30 baht per month.

   c) Two gas lamps per classroom or 30 baht per month per classroom for electricity.

5. Textbooks and other learning materials are prepared by the Division and forwarded to the provincial officials for distribution.

6. Class schedule is to be determined on the basis of the local annual agricultural work-cycle.[1] Instruction is to be given at least two hours a day, three days per week and run continuously for at least six months. In special cases where learners request a temporary halt to classes, the teacher must request permission from the District Education Officer to close the school temporarily. This officer, in turn, must notify the province of the schedule change.

7. Supervision is the responsibility of the provincial education officer, the supervisors on his staff, and the district education officers. Supervisors are to

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1. In the Eighth Educational Region classes are usually conducted from 1 January to 30 June.

visit classrooms and meet teachers to assist them with technical and administrative matters. The supervisors should visit each school at least three times per year and forward their reports to the Adult Education Division.

8. Follow-up consists of mid-term meetings among teachers, local (provincial and district) education authorities, and members of the Adult Education Division. The purpose of these one day affairs is to discuss and seek solutions to technical and administrative problems related to programme operations.[1]

9. Learner performance in the functional literacy programme is evaluated in the following manner. Regional or provincial supervisors give the new learners a pre-test to determine their baseline literacy and numeracy skills and attitudes towards a range of daily life conditions. During the course at least three additional tests constructed by the teachers are given to determine achievement and attitude change. A final or post-test is then administered to measure learning gains. These testing procedures are used only to diagnose problems and measure progress. The results are not used to decide whether a learner passes or fails. This latter decision is left to the individual teacher with the proviso that a learner must attend at least 70 per cent of the 200 hour course to be eligible to pass the course and receive a certificate. If a learner has performed well during the course but has not met the stipulated attendance requirement, the teacher may arrange special make-up sessions with the individual.

Other adult education programmes

In addition to these functional literacy programmes the Adult Education Division, working in collaboration with provincial educational authorities, provides a wide range of additional services, all of which operate in the Eighth Region. A brief description of each follows:

1. Village Newspaper Reading Centres Programme provides three daily newspapers plus a monthly Wall Newspaper

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1. These meetings have proven to be the most useful feedback mechanisms available to Division administrators and technicians.

to any village which constructs, at its own expense, and maintains, through its own efforts, a small reading centre. Of the 4,000 centres currently functioning in the country, 1,050 are found in the Eighth Educational Region.

2. Interest Group Programme provides for 5 to 30 hours of instruction in any subject area selected by a group of 15 or more villagers. A sum of 30 baht (US $1.50) per hour is allocated to pay instructors who are either recruited by the villagers, or, if unavailable in the community, provided by the provincial adult education authorities. Activities tend to focus on subject areas such as sewing, handicrafts, small engine (e.g., water pump) repair, animal husbandry, agriculture and, soon, appropriate technology. This programme, still experimental in nature and scope, has met with much success in test sites in the Eighth Educational Region.

3. Mobile Trade Training Schools Programme[1] This programme aims at promoting occupational skills among the rural population and, thereby, improving living standards and strengthening the links between the state and villages. At present only three schools operate in the Eighth Region and only one of these services more than one district. These schools offer courses up to 300 hours long on a variety of subject areas and, in theory, move in response to local requests and needs.

4. Mobile Adult Vocational Units. These units began operating in 1950 and offer courses in dressmaking, mechanics, agriculture and hair-styling. The units are set up in distant villages for three months and then move to another village. Site selection is made by the provincial education authorities in response to requests from local authorities or village leaders.

5. Public Libraries. Initiated by the Division in 1948 and administered by local authorities, the programme

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1. For a detailed analysis in English see Manzoor Ahmed, "Thailand: mobile trade training schools," in P.H. Coombs, and M. Ahmed, eds. *Education for rural development*. New York, Praeger, 1975. p. 617-646.

now involves libraries in each of the 71 provincial capitals and in 261 other districts throughout the country.

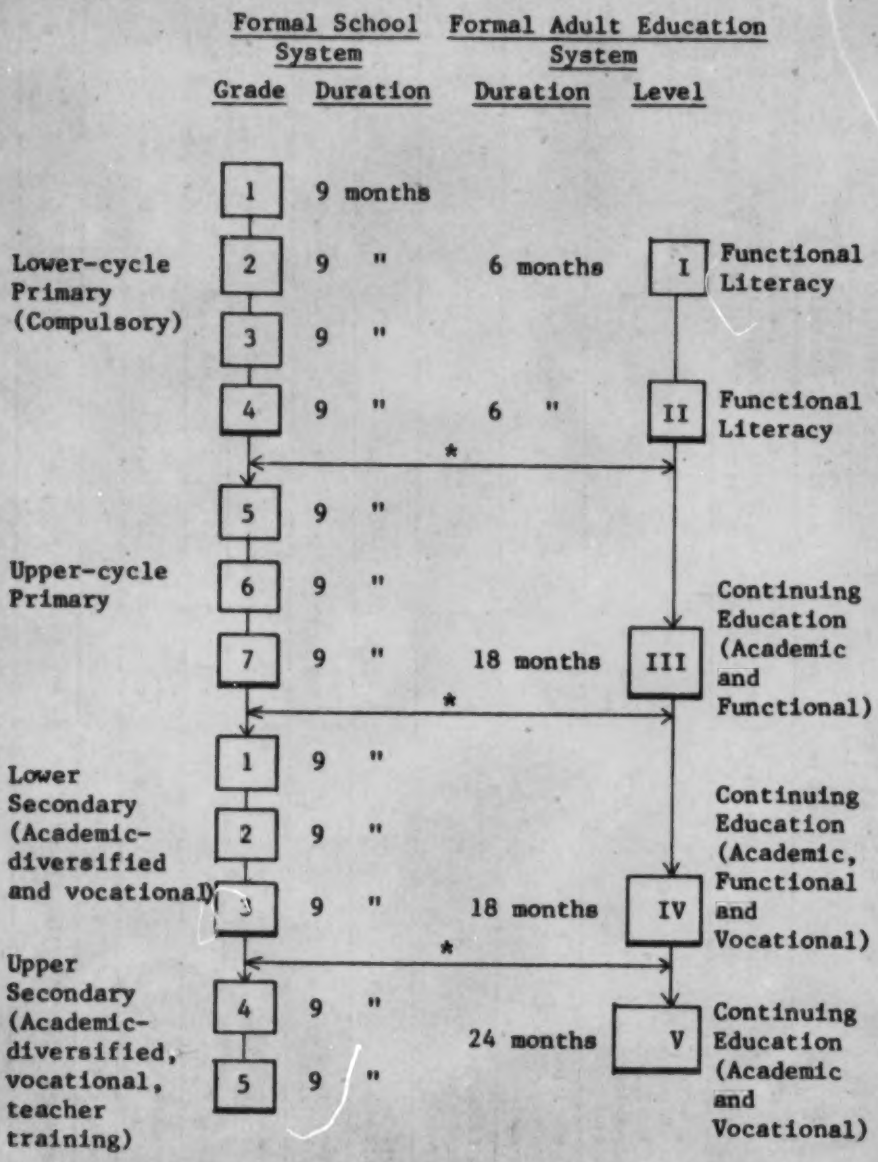
6. Continuing Education. Post-literacy adult education programmes are offered at three different levels (upper-cycle primary, lower-secondary, and upper-secondary). These courses, first established in the early 50s, have been patterned directly on the regular formal school programmes and serve primarily urban and provincial town populations. More recently, the Division has undertaken curriculum reform efforts along functional lines and based on a philosophy similar to that of the functional literacy programme. These new curriculum currently still experimental, will replace the current academic and vocational programmes at the upper-primary and lower-secondary levels in November 1978. At the same time Division-sponsored upper-secondary programme will end, leaving second-chance education at this level to the private sector. A comparison of this more formalized adult continuing education system and the regular school system is shown in Diagram I on the following page.

7. Adult Vocational Schools. These schools numbering over 80 throughout the country utilize existing secondary vocational school facilities. Courses range from 100 hours to one year in length and are offered in 25 subject areas under four major categories - industrial arts, home economics, business arts, and agriculture.

8. Rural Information Services. The objective of these activities is to keep the rural public informed about current news, subject areas of particular interest, and government announcements and activities. The general medium employed is motion pictures shown in remote and semi-remote villages and communities. Presently, there are 71 rural information units serving the up-country provinces and four units serving the Bangkok Metropolitan area.

The extent to which these various services are available in Region Eight can be determined from Table 9.

Diagram I. Relationship between school and adult systems



* Certificates awarded are equivalent.

Table 9. Adult education activities in Educational Region 8 by province: enrolments and number of districts served, 1977

Activity	Chiengmai 17 districts		Chiengrai 15 districts		Nan 6 districts		Phrae 7 districts		Lampang 10 districts		Mae Hong Sorn 4 districts		Lamphun 5 districts	
	Enrolment	No.of dist. served	Enrolment	No.of dist. served	Enrolment	No.of dist. served	Enrolment	No.of dist. served	Enrolment	No.of dist. served	Enrolment	No.of dist. served	Enrolment	No.of dist. served
Functional Literacy	608	8	571	5	664	6	545	5	495	7	133	4	211	4
Continuing Education Level 3 (Academic/ General Stream)	3 360	17	1 610	14	1 015	6	735	6	1 540	8	140	3	850	5
Continuing Education Level 4 (Academic/ General Stream)	1 855	17	1 400	15	735	6	455	6	875	8	140	3	315	5
Continuing Education Level 5 (Academic/ General Stream)	1 015	2	805	3	70	2	210	2	430	1	-	-	350	1
Adult Vocational Schools (All Levels)	1 325	5	112	1	80	2	180	3	150	2	65	2	84	1
Mobile Trade Training Schools	671	4	-	-	88	2	117	1	-	-	-	-	-	-
Mobile Vocational Units	1 642	1	100	1	83	3	-	-	150	2	50	1	42	1
Interest Groups	500	3	349	3	500	9	849	7	349	10	300	4	735	5
Village Newspaper Reading Centres	174*	n.a.	177*	n.a.	141*	n.a.	124*	n.a.	245*	n.a.	42*	n.a.	145*	n.a.
Public Libraries	9*	8	10*	10	5*	5	3*	3	6*	6	1*	1	5*	5
Rural Information Service	183 531	n.a.	132 501	n.a.	44 665	n.a.	55 298	n.a.	194 533	n.a.	12 600	n.a.	38 503	n.a.

* = Number of centres or libraries
n.a. = data not available

The administrative system

All the programme of the Adult Education Division currently available are offered nationwide. Up to the present most if not all of these programmes have been initiated, planned, and developed by Bangkok-based Division officials working to some degree in collaboration with provincial education supervisors. For example, in the Eighth Educational Region Division officials have undertaken approximately 80 per cent of the programme development work (e.g. needs assessment, programme design, curriculum and materials development, teacher training).[1] The provincial education authorities have had the prime responsibility for programme implementation and supervision. Briefly, these authorities advertise programmes, select sites, recruit and hire instructors, and conduct evaluation and follow-up activities.

On the whole it could be said that the adult education system has operated effectively where there has been enthusiasm for andcommitment to adult education on the part of the provincial education officer and the supervisors under him. But in other circumstances, when adult education was assigned to a supervisor as 'another duty', or, indeed, when it was not the direct responsibility of any one person, few activities were initiated or conducted with any real interest. The Division could only stimulate programme activities by its annual budget allocation to a province and its ability to establish collaborative working relationships with provincial authorities. In most if not all of the provinces of the Eighth Educational Region the working relationships have been sound and programmes wide-ranging.

As part of the recently initiated five-year reform and expansion project for adult education supported in part by an IBRD loan, the Adult Education Division will establish two new types of adult education facilities in the Eighth Region. At Lampang a regional centre responsible for research, curriculum development, materials production and training is now almost complete. Operating under the direction of the Division and advised by inter-ministerial regional and national committees, this centre and similar facilities in the other parts of the country are viewed as technical service

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1. It should be noted that in many of the provinces in the Southern part of the country (e.g. Yala, Songkhla), local authorities have had full responsibility for programme development for some time.

units responding to the needs and initiatives of the provincial Lifelong Education Centres and education authorities within their geographical region.[1] Their overall goal will be to develop programme models and content suited to the context of the region they serve. The functions of the Bangkok centre will be focused on matters related to national co-ordination, policy-making, planning, and quality control. Division personnel will also have important training functions *vis-a-vis* regional centre staff and will continue to have the prime responsibility for producing core curricula for those courses (e.g., Functional Literacy, Continuing Education, etc.) offered nationwide and for conducting research and evaluation studies.

At Chiengmai and Nan provincial Lifelong Education Centres are being established.[2] Working under the authority of the provincial authorities, the centres will operate all adult education programmes and special activities, directing 80 per cent of their efforts to the rural areas. They will also serve as a focus for co-ordinating efforts with other development service agencies in their province.

Of course, these administrative changes will be gradual and will have their most significant impact on those provinces where LECs will exist.[3] In provinces where LECs are not established the Division will continue to work through the provincial education officer and his supervisors. The new system will resemble that depicted in Diagram II.

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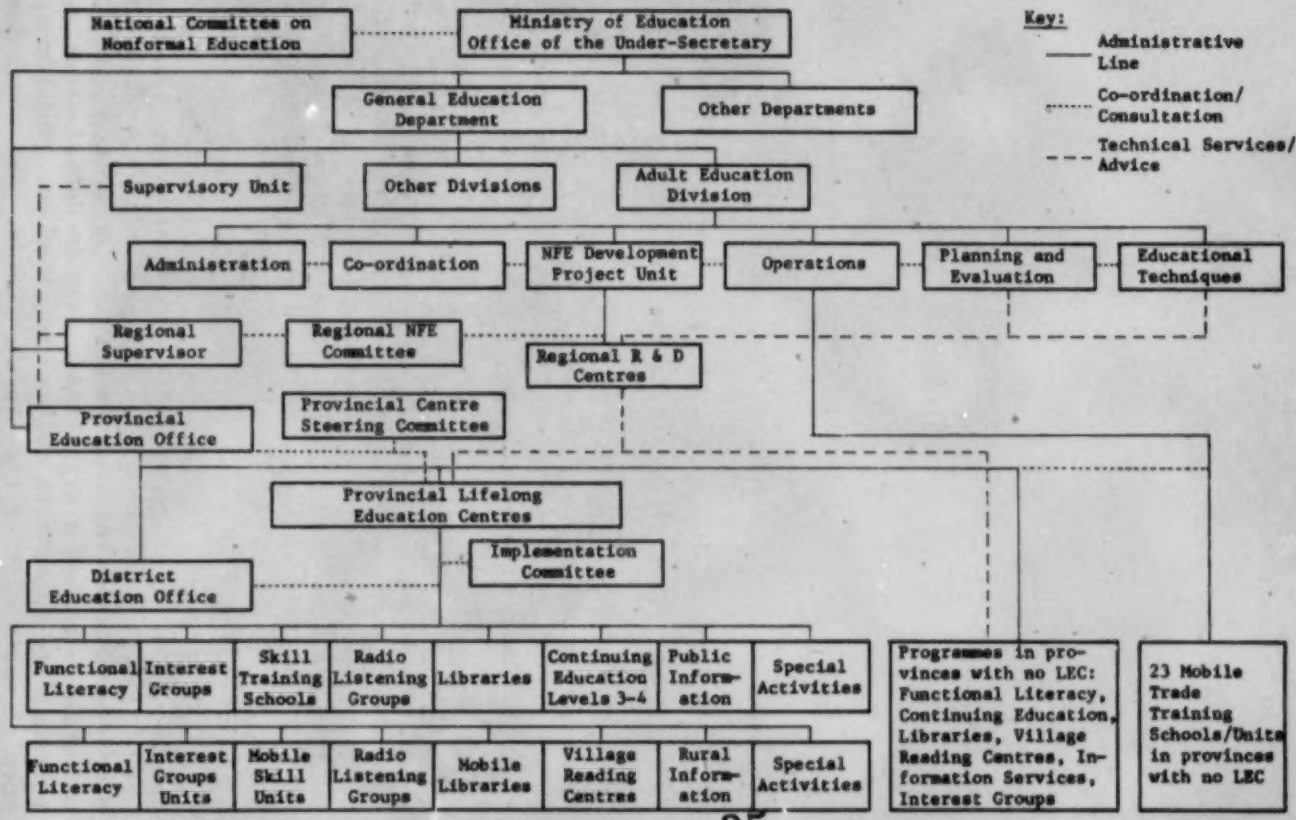
1. Other regional centres are being established at Ubol (Northeast), Ratburi (Central Plains) and Songkhla (South).

2. A total of 24 LECs will be developed as part of the IBRD loan project. The Ministry's long range goal is to establish LECs in each of the nation's 71 provinces and in the slum areas in Bangkok.

3. In the current fiscal year the government plans to establish five LECs in provinces not covered by the IBRD loan project.

Diagram II. The adult education administrative system (unofficial)



Part II - DETERMINING LEARNERS' NEEDS

Initial efforts

In August 1970 a team of officials from the Adult Education Division and local education authorities carried out a baseline survey in Lampang and Phrae provinces to obtain data on village living conditions. Since funding was limited, the team was able to sample only two villages in each of the provinces. In these efforts they sought data on:

1. Village living conditions and economic activities and practices;
2. Villagers' knowledge, attitudes, and practices in areas of health, sanitation, family planning, agriculture, marketing, etc.,
3. Villagers' literacy levels and popular lexicon.

The team utilized two interrelated techniques; interviews (about 40 respondents average age 35) and group discussions. The data obtained from these efforts produced the following composite of village life and villager characteristics.

Language and education. While the villagers preferred to use the local dialect, all could understand Central Thai and, when requested, were able to communicate in it with moderate success. Almost all those interviewed were able to write at least one of their names. Although few of the adults had attended formal public schools, most were sending their children to village schools and placed a high value on formal schooling.

Family life. Families averaged 3.3 children. Most people had lived in their village for some time. Houses were of basic wood structures, raised off the ground, and simply furnished. The father was the recognized family head, although women had a significant role in decision-making, particularly in matters related to finances. The men spent much of their working time in the fields. The women were primarily responsible for the household chores, shopping,

child care. However, during the planting and harvesting seasons and at other times when their help was needed, the women worked in the fields. Children began assisting with household and some field-related chores around the age of seven to ten.

Nutrition. Most babies were not breast fed for more than a month or so. After that time they were fed a mixture of rice and bananas. Home grown sticky (glutinous) rice was the staple diet with meat, fish, chicken, salt, and pepper purchased from the market and garden vegetables serving as supplements.

Glutinous rice was cooked early in the morning and eaten throughout the day. Little cooking was done in the evening, particularly during periods when field work demands were heavy.

Health practices. Most villagers purchased medicines for colds and minor discomforts without consulting doctors. Traditional medical practitioners were an important source of advice and medicine for more serious matters. They were also sought out for vaccinations. Only when people were seriously ill would they seek help from the staff of the nearest health centre or make a trip to the provincial hospital.

A few villagers practised family planning. The majority were aware of or interested in information on birth control techniques.

Occupations. The cultivation of rice both white and glutinous, was the main occupation of the villagers. Beans, tobacco, garlic and challots were also cultivated but mostly for village consumption. During the dry season many villagers sought work as hired labourers outside the village. Agricultural practices were traditional and basic, employing water buffaloes and simple hand tools.

Government. All the villagers were aware of the local leaders (village headman, *Tambon*[1] officer), but few knew the names of the District Officer, District Education Officer, Prime Minister and King and Queen, or where the district offices were located.

The interviews and group discussions provided the following insights on villagers' attitudes:

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1. A *Tambon* is an administrative unit between the district and village.

On education . Most of the villagers felt education was very important for their children in that it would enable them to develop literacy skills and, perhaps, eventually become teachers or government officials. Their hope was that their children would not have to work as they did and cope with the uncertainties of agricultural production. For themselves, an education that provided occupational training (tailoring, hair dressing, or business) and, literacy skills was preferred.

On family size. A full range of views was found but a good percentage were interested in limiting family size.

On 'what they would like to be in their next life'. Most villagers hoped to be teachers or government officials. A few, however, would choose again to be farmers.

On what they would do with a gift of 2,000 baht. Many responded that they would use it in ways related to improving their farms. A significant number suggested saving it. Some young women said they would use the money to get occupational training in non-agricultural fields.

In addition to the village level efforts to secure data, the Division team held discussions with provincial and district education officers. A particular issue raised by Division representatives was whether matters in the curriculum related to family planning should be raised directly or indirectly. The opinions of these local officials were split with a slight majority recommending a direct, explicit approach showing the relation between large families and poverty. In other areas as well, these officials were strongly supportive of approaches that provided direct information on what villagers should do to solve their problems.

The data and photographs gathered from this first needs assessment effort were analysed by a committee formed by the General Education Department. Drawing from this data the Committee formulated a series of concepts which would provide a basis for the Functional Literacy Curriculum. The resulting curriculum consisted of 73 concepts divided in four general categories, i.e., Agriculture (18), Health and Family Life (30), Economics (11), and Civics (14).[1]

Second efforts

In 1974 the Division initiated a second needs assessment effort to obtain data for validating or improving units

1. The full curriculum is provided in Appendix I.

in the existing functional literacy curriculum and for developing a more functional curriculum for the continuing education programmes at levels III and IV. Support from the Colombo Plan made it possible to carry out the study in each of the major regions of the country.

The approach utilized involved the following activities:

1. The Division invited villagers, local and provincial officials, and representatives from various professional groups working in rural areas to a workshop. Using group discussion and brainstorming techniques and reflecting upon their own experiences, the participants developed lists of village conditions, interests, needs, and problems.

2. After the workshop the participants returned to their villages and spent the next one and a half months reflecting further on the matters raised during the sessions. During this time they continued to record problem conditions in their villages and to discuss potential causes with their neighbours.

3. The original participants attended a second workshop. At this session they sought to clarify the nature, causes, implications and relative importance of the problems and arrange the village needs in order of priority.

4. Division planners then formed a team to conduct a nationwide survey in an attempt to validate workshop findings with a broad, diverse sample of the population in both advanced and poor villages. The results of this study indicated that villagers, in general, had a good understanding of many of their immediate problems and, were often aware of technical solutions to them. However, in areas in which they lacked adequate information or technical knowhow, (e.g. on nutrition) the villagers often did not know from where to get the information, and even if they did, they lacked the confidence to approach the source of information.

The survey findings further indicated that it would not be necessary to include the content on agricultural techniques in the curriculum. This interpretation was based on two findings. First, a significant number of the respondents were already aware of appropriate agricultural techniques and technical solutions to their agricultural problems. Secondly, opinions regarding the causes of most agricultural problems obtained from the farmers themselves as well as local officials and extension agents tended to focus on social and economic structural factors.

On the whole, the survey validated the need for course content related to many of the areas and topics identified during the workshops. In particular, in all parts of the nation, it was found that rural people lacked access to adequate information on topics concerning personal health and hygiene, population and family planning, nutrition, sanitation, and the rights and responsibilities of citizenship.

Using both workshop and validation survey findings, the Division officials reviewed the existing functional literacy curriculum, text, and teachers' handbook. These efforts revealed that many of the issues presented in the original effort were still valid, a finding that was hardly surprising given the fact that most of the initial material dealt with fundamental problems which defy short-term solutions. The reviewers did, however, find it necessary to clarify certain issues and, in general, to provide more hard information in many of the lessons related to health, nutrition, and the other topics mentioned immediately above.

Part III - CURRICULUM AND TEXT DESIGN

The philosophy

As mentioned in Part I, the planners of the Adult Education Division formulated a philosophy specially for this programme to insure that the curriculum, texts, and other learning materials, and the instructional techniques to be used would be guided by a common direction and set of goals. The planners explored a number of philosophical assumptions and strategies used in other programmes and in all cases found aspects that were unsuitable for the Thai context. Many approaches reviewed advocated behavioural changes of one type or another. These efforts tended to prescribe a set of desired behaviours and develop learning activities and instructional techniques that would lead learners, explicitly or implicitly, to accept those behaviours. Few provided learners with opportunities to take into account their own experiences and reflections. In these approaches solutions to problems were often simplistic, viewed as they were from a single perspective. The learners' personal and community backgrounds were rarely given adequate consideration.

The Division staff concluded that in attempting to utilize such solutions learners would encounter serious obstacles and would not be able to apply successfully any useful knowledge they might gain because they lacked a broad understanding of, or failed to consider sufficiently, contextual factors. For example, lessons encouraging villagers not to keep their livestock or poultry under their homes may be justified from public health concerns but failed to take into account village security problems and the prevalence in any one area of thieves or rustlers. In the same sense, lessons encouraging villagers to discontinue the practice of using open fires inside poorly ventilated homes may be valid from the point of view of those health specialists concerned with the negative affects of inhaling excessive amounts of smoke. However, these prescribed solutions determined by outside experts fail to account for the fact that without such smoke the residents would have problems related to insects and mosquitoes, milddew, food preservation, and warmth. In both

these examples the proposed remedy for the problem can in itself create more serious problems in other areas.

The adult education philosophy which the Division planners developed for this functional literacy programme was based on the previous programme experiences of the Division and a careful consideration of dominant Thai Buddhist values. Moreover, recognizing that while resources for adult education would increase they would still be limited, these planners sought a philosophy that would promote greater self-reliance in learning among adults.

The Division's philosophy is postulated on the following basic assumptions:

- All people seek happiness as their ultimate goal;
- Each person must define happiness for himself on the basis of his or her own experiences, beliefs, abilities;
- While individuals may find it difficult to define happiness for themselves, they will tend to be happy when they are in harmony, both emotionally and physically, with their environment, or, more realistically, when they realize they are doing the best they can to move toward such a harmony;
- Since education and other development activities should be designed to serve man, they must assist him to search for the tools (attitudes, skills, and information) that will enable him to adapt himself and his environment in order to create his own level of harmony.

In the Division's programmes a process known as *khid pen* is promoted as a vehicle to assist learners develop the tools they need to work towards the level of harmony they desire. First incorporated into the functional literacy programme, this process is being extended to all Division activities.

Before turning to the mechanics of this process, however, a definition of *khid pen* should be attempted. Frequently, definitions refer to critical thinking, rational thinking, problem-solving and the like. Others claim it involves all these processes 'and more'. *Khid* in Thai is the verb 'to think'. *Pen*, when following another verb is an evaluative term implying a satisfactory level of performance of the preceding verb in the view of the speaker. For

example, one may say to his wife that his friend plays soccer *pen*, indicating that he thinks his friend is an adequate player. However, that same friend, when asked by the now admiring wife, may answer that he plays *mai* (negative) *pen*, indicating in this case[1] that he is not satisfied with his abilities. A *khid pen* person, then, can be someone whom others recognize as having thought through a particular situation well and/or who feels that way himself.

Khid pen as a process may be defined in the following way. A person approaches a problem and seeks potential solutions to it by considering or analysing data about:

- his personal situation, including his values (feelings), capabilities, weaknesses, and resources;
- his environment, including his community's social, cultural, political, and physical conditions; and
- the best accumulated knowledge available related to the issue and its potential solutions.

The problem and alternative solutions thus considered, the individual then chooses both a solution and a course of action designed to achieve his goals relying on the same analytical process. If, due to circumstances beyond his immediate control (e.g., a lack of certain knowledge or skills) or an unwillingness to accept possible negative consequences of necessary actions, he cannot choose the solution he most desires or a course of action that will lead to it, he will adopt a lesser solution or a course of action that may make his desired solution possible in the long run. These latter actions may include learning required skills, obtaining more relevant or fuller knowledge and information, or initiating steps to modify obstacles which exist in his environment.

In brief it could be said that the philosophy and its application encourages people to change themselves or their environment or both, but not to endanger themselves, emotionally or physically, or their environment in the process. In programme terms the following general tenets emerge:

- curriculum should focus on the real and immediate problems of adult learners and their community;

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1. *Mai pen* is also used to mean 'not at all'. Since this individual does indeed play soccer, his use of *mai pen* indicates his own dissatisfaction with his abilities.

- materials should pose problems or describe potential problem conditions and provide related technical information or indications as to where such information can be obtained;
- learning sessions should be held in an atmosphere conducive to sharing experiences and ideas;
- the instructional processes should require learner participation, draw on learner experiences, and seek learner solutions to learner and community problems;
- the teacher's role in discussions is to facilitate, to encourage learners to consider the problems and their potential solutions in light of their own situation and that of their community and the best technical knowledge available. Special concern should be directed to the individual and community contexts as these matters are often neglected in school traditions which emphasize technical knowledge.

Finally, thinking in *khid pen* terms (and the functional adult education philosophy) provides a broader perspective than exclusive reliance on technical knowledge or information about the social context alone. In a period of rapid societal change promoted by powerful forces, it is relatively easy for people to become servants of one or several competing vested interest groups. Change forced in this fashion can have serious negative implications for both the individuals involved and the general society. If people realize the importance of thinking from all perspectives and angles, they will tend to choose a course of action that will bring them a degree of happiness even when problems can not be fully resolved in a short time, regardless of the amount of resources brought to bear on them.

The development of the adult education functional literacy curriculum

Upon the completion of the basic surveys in Lampang and Phrae provinces in 1970 (see above, Part II) the Adult Education Division requested that the Ministry of Education appoint a committee to develop a functional literacy curriculum. The 22-man committee charged with this duty included representatives from the Ministries of Health, Economic Affairs, and Agriculture in addition to specialists from the Department of Educational Techniques and the General Education Department's Supervisory Unit.

Unfortunately, the data gathered from the survey in the two provinces did not provide a sufficient basis for curriculum building. Among the most serious shortcomings was the fact that a majority of the survey questions concerned the interviewee's personal background and not their health, occupational, and economic attitudes and practices. Moreover, the time allocated for the interviewing was insufficient. As a consequence committee members had to rely heavily on data previously gathered by other government agencies and on views of village problems that officials of these agencies had developed through their experiences in various development efforts. Data of this latter type, in particular, proved useful as the individuals were intimately involved in a wide variety of field-level development efforts. For instance, with respect to health content, the Division relied on the Ministry of Health officials who were able to provide numerous examples of actual situations encountered in their work in Northern Thailand.

The relationship between curriculum content and the target group's problems

The adult functional literacy curriculum consists of a series of self-contained units, each covering one specific problem or idea. In theory the units describe conditions faced by the target group and pose problems that these conditions might cause. It is the responsibility of the class to determine whether or not the problems posed are their problems, to identify other problems that may arise from the condition or situation, to note the beneficial aspects of these conditions, and, finally, to decide on alternative solutions (if necessary) to the problems in their group discussions.

The original curriculum contained 73 units. The general subject area breakdown was as follows:

Agriculture	18 units
Health	30 "
Economics	11 "
Civics	14 "
	73 units

A sample of curriculum units is provided further on. A description of the complete curriculum can be found in Appendix I.

Samples (translations)

Agriculture (total units 18)

Condition : Many farmers leave their fields idle once they have finished harvesting their paddy

Problem : Agricultural production is low. Farmers do not earn sufficient income.

Curriculum concepts : Farmers should use their land all year round. By rotating crops such as corn and vegetable with rice, farmers can increase their income. Legumes are especially recommended as they help to restore certain soil nutrients.

Health (total units 30)

Condition : People enjoy eating partially cooked or raw meat and fish dishes. They like the taste and believe such dishes are nutritious.

Problem : Partially or uncooked meat and fish can carry parasites such as trichina, liver fluke and tapeworms.

Curriculum concepts : Meat and fish are apt to contain germs or parasites such as trichina, liver fluke, tapeworms. It is therefore recommended that meat and fish should not be eaten raw, but rather should be cooked well so that any germs and parasites will be eliminated.

Economics (total 11 units)

Condition : Most farmers do not have facilities for storing their produce before selling it. Therefore, when the middleman's buyers offer a price, the farmers are often obliged to accept it even though it is low. For example, a farmer who may get 25 satangs per egg from a buyer, could get one baht if he sold it in the market.

Problem : Farmers get low prices for their produce

Curriculum concepts : Selling goods that will pass through many middlemen before reaching the retail market will bring less income for each middleman wants to make a profit. To get a good price a farmer should deal with the middleman closest to the retail market.

Civics (total 14 units)

Condition : Although Thailand has a democratic form of government, most villagers still regard government officials as their masters. They hold these officials in awe and are often afraid to seek them out for advice.

Problem : There is a gap between the people and government officials. People do not make use of their right to obtain official services which can help them improve their lives.

Curriculum concepts : The governor is the head of the province; the district officer the head of the district. Both the governor and the district officer are responsible for seeing to it that government services reach the people and for providing for their welfare. Villagers should co-operate with officials to improve their village and province.

The adult functional literacy textbook

After the functional literacy curriculum was established a working group was formed to develop the textbook. This group consisted of the following personnel; Adult Education Division officials, Thai language and arithmetic supervisors, and educators skilled in the northern dialects and aware of the living conditions of the northern people. Altogether there were six full-time members of the group and a varying number of part-time resource people who assisted in writing some lessons and anlysing the early drafts of the text.

The process of preparing the text was much more difficult than that of constructing the curriculum. Considerable

debate surrounded almost every step in the development of the lessons as there was a crash of opinions over matters concerning key words and vocabulary selection as well as sentence construction and length. In any case, the basic principles eventually decided upon to guide text development were as follows:

1. Emphasis on content relevance. Given the fact that the Adult Functional Literacy Programme aimed to promote knowledge related to the daily problems of the population, the text was developed placing paramount importance on content relevance. From the moment the adult learners began their studies they were faced with lessons which included discussion problems. Such content was *not* put aside until the learners had mastered the ability to read the consonants and vowels individually and then in combination as had previously been the case in all literacy efforts in Thailand.

2. Each lesson a self-contained unit. Given the fact that the adult learners in this programme were to study only two hours per day for three days a week, it was decided that each lesson should be a self-contained unit which could be completed in the two hour period. The understanding that rural adult learners could not attend class on a regular basis further reinforced this concept. In these self-contained lessons all components, namely, key words, reading passage, language drills, and arithmetic lessons were related to the particular knowledge or concepts covered in the lesson.

3. Related Thai language and arithmetic components. Even though in most curricula arithmetic is an independent subject area, in the adult functional literacy curriculum the arithmetic content of the lesson is closely connected with the Thai language content. For example, in a lesson about farmers the arithmetic component includes problems involving farmers as well. Moreover, in a lesson about family planning, the arithmetic section focuses on reading the calendar, knowledge that is useful in calculating the days when one should take contraceptive pills.

4. The textbook made from separate cards. One special characteristic of the functional literacy text is that instead of being a regular book it consists of a series of separate cards. This format was adopted for the following reasons:

a) To avoid overwhelming the learners by presenting them with a thick text that appears formidable.

b) To motivate the learners to attend classes regularly so that they can add pages to their book.

c) To allow for easier text revisions, additions, or deletions depending on local needs.

The learners receive a binder in which they can keep the lesson cards that they receive each time they attend class.

5. Use of pictures to introduce the lesson or concept. Pictures are used frequently in the functional literacy text. Most are real life photographs taken in the northern part of Thailand. The purposes of these photographs are as follows:

a) To help the learners to reflect on real problem conditions in their community and thereby make the problem presented real, not hypothetical.

b) To motivate discussion of the problems that the learners face in their daily lives.

Instructional techniques

The instructional techniques used in the programme were specifically designed to be consistent with the Division's philosophy of education. The steps involved are as follows:

1. Use of photographs to introduce the lesson concept. The lesson begins with the teacher showing the photograph on the wall chart[1] to the learners. Photographs are selected for their ability to stimulate learners to reflect upon conditions they and their community confront. For instance, when they see a photograph of a person drawing water from a well, they may think of the times they draw water from the wells in their village. Or, when they see a photograph of garbage scattered on the ground or being burned, they may think about how garbage is disposed of in their village. It is not an easy matter to secure photographs that will stimulate the learners to reflect upon problem situations. Consequently, it is often necessary for the teachers and learners

1. The large, easily visible wall charts duplicating the picture and reading passage found in the learners' text are used as aids in both the introductory discussion and reading drills.

to talk together about the conditions in the photograph and, then, discuss related conditions common in their village. But these conversations should not be carried on to the point where the teacher offers instruction in the causes of and solutions for problems that may exist in the conditions. Photographs are used whenever possible; however, when a lot of details are required and an appropriate photograph cannot be located, drawings are included. The current revised version of the adult functional literacy text has 95 photographs and two drawings.

2. Study key words to introduce lesson concepts. Thai language texts for beginners have different ways of using key words. Most select words that include certain vowels and consonants in order to teach or reinforce techniques for combining letters. Words that meet this criteria have a serious limitation in that they often do not convey any important, functional concepts. The Functional Literacy Project, therefore, did not follow this approach. Instead, text writers selected key words which conveyed the lesson concept directly and did not concern themselves with the vowel-consonant combinations they contained.[1]

The function of the key words in the functional literacy text are as follows:

a) to convey the gist of the lesson content;

b) to introduce the lesson concepts; and

c) to aid the learners to develop a vocabulary of words commonly found in printed matter in rural areas.

3. Pose issues and questions to stimulate discussion. In theory, discussion should dominate functional literacy classes. However, discussion does not take place without sustained stimulus, particularly in Thailand where school and other education traditions have rarely utilized this technique. After reviewing ways discussion could be stimulated the planners of the adult functional literacy programme decided not to rely on methods that involved excessive teacher questioning as it was felt that, given their prevailing attitudes about and experiences with schooling, learners would tend to merely answer those questions and, more seriously, seek answers that

1. For a full list of the key words used in the text see Appendix II.

would please the teacher. Techniques of this nature would not, therefore, be sufficient either to strengthen *khid pen* capabilities or to promote independent decision-making among the adult learners.

As a result it was decided that teachers would merely pose issues for the learners to consider, first, in small group discussions and, later, as a class. In phrasing the issues two ground rules were established. First, the issue should be stated in such a way that the learners would find no clues as to a 'correct' position to take on it, that is, the statement should be value neutral. Second, to the extent possible, the phrasing should stimulate the learners to consider not merely technical knowledge or information, but also data concerning their social and environmental context and their own resources or lack thereof. The issues are not contained on the learners' lesson cards and are found only in the teachers' handbook.

Several issues drawn from the current curriculum are offered below as samples.

Samples (translations)

a) From a lesson on transplanting paddy seedlings

1. Do you think that the methods used to transplant paddy seedlings in your village are the best possible or not? For what reasons?
2. Is the saying 'bad soil, plant close; good soil, plant wide' relevant to transplanting rice seedlings? Please explain why.
3. In the past year what guidelines did you follow in transplanting your paddy seedlings? Why did you do it that way? Next year do you think you will do it the same way? If so, why? If not, why not?

b) From a lesson on family planning

1. Compare the general physical health of a woman you know who has many children with a woman you know who has only a few? How are they different? Similar?
2. Do you agree or not with the common slogan which says that a woman who has a lot of children will age rapidly and lose her beauty? Why? Why not?

3. In our village in the future should parents have many or few children? Why? Why not?

c) From a lesson on forming groups

1. In this village have any groups ever been formed? What were the advantages and disadvantages? If there is no group formed yet, should we try to organize one? Why (for what purposes)?

2. Talk about foreign investment in Thailand. They often form a group of shareholders. Should we do the same?

3. From now on should we work as a group or team? Why? Why not?

4. Have learners break into small groups for discussion. After the picture has been discussed and the issues raised the teacher asks the learners to divide themselves into small groups of six to seven to discuss independently the issues posed. The teacher does not participate in these discussions but acts only as a facilitator/adviser of the groups if requested. The concern is to minimize the teacher's influence in these discussions. These small group discussions are expected to provide the learners with the opportunity and atmosphere appropriate for:

a) thinking imaginatively, critically and creatively. (If the teacher is allowed to participate in group discussion the Thais traditionally tend to accept the teachers ideas); and

b) exchanging experiences and ideas (life experiences offer many valuable insights into problems and their solutions, conventional analytical frameworks and solutions often are inappropriate in rural contexts. Moreover, some solutions offered by modern technology can have serious negative consequences for the ecology and living standards of the rural areas);

c) openly discussing both the advantage and disadvantages of various actions and, thereby, developing a broader perspective on problems and proposed solutions;

d) becoming familiar and comfortable with the idea of speaking out publicly on issues and realizing that

they, the learners, as well as high ranking or senior officials or group leaders, can and should speak out on issues. (To stimulate sense of responsibility in family, community and finally national level interactions. To convert conventional women's roles as followers to active roles as self and community developers).

5. Learners find their own solutions. Another distinctive characteristic of the adult functional literacy teaching process is that the learners not the teachers choose their own solutions to the issues posed. Their decisions may be different depending on their own context. The teacher should not attempt to manipulate the learners' thoughts but should leave the solution open for each person to decide. For the teacher to impose certain ideas of beliefs on the learners would only reinforce the usual dependency relationship the student has formed with the teacher at a time when such relationships are gradually changing.

6. Key words drilled and memorized. After discussion, the teacher's role becomes more directive as the key words appearing on the front of lesson cards are drilled and memorized. The purpose of this part of the lesson is to provide learners with an opportunity to learn words that are frequently found in newspapers, official government statements, and other printed matter encountered in rural areas.

7. Reading drill passage. Once the learners have mastered the key words the teacher guides them through several readings of the lesson passage. These passages offer further drills on the key words and are designed to develop the learners' ability to read simple sentences. Their content provides information related to the issues discussed. Often this information includes solutions to the problem as well. As a result, a frequent criticism of this approach is that these solutions will have too much influence on the learners and, indeed, that the learners may adopt these textbook solutions instead of ones they have determined on their own. In theory, the learners are expected to treat these textbook solutions as additional options that should be considered only in the light of learner and community context and, also, against better technical knowledge.

The reading passage is found on the reverse side of the lesson card containing the photograph. This passage contains the key words found under the picture and information concerning the problems or possible solutions to them.

In order that the learners may remember the key words the passage contains these words in the first two or three sentences. In the subsequent sentences there are blank spaces where the appropriate key words, selected from a list, are to be filled in by the learners. Following are two samples of this part of the lesson.

Samples (translations)

a) Thais have different occupations. Some have occupations as paddy farmers. Some have occupations as fruit growers. Some have _____ as civil servants. Those occupations which many people are engaged in are important. Many people have occupations as paddy farmers so paddy farming has a lot of _____ance.	important occupations

b) In the planting season we grow rice. Once the planting season is over we grow beans or other vegetables. We plant rice and grow vegetables in rotation all year round. When we take our vegetables to sell we increase our income. If we want to increase our _____ we should, after the rice harvest, _____ vegetables in _____ all year round.	income grow rotation

The reading passage, then, provides the following:

a) A summary of some of the points likely to be made in the discussion.

b) A reading and writing exercise.

c) An exercise that will enable the learners to remember the key words.

d) An encouragement to the learners as they succeed in selecting the correct key word for each blank (it utilizes the immediate response and reinforcement principle of programmed texts).

8. Writing exercises. The next part of the lesson is the writing exercise. A variety of teacher-guided drills are used throughout the text. The vocabulary used in these exercises include emphasis on the key words of the lesson. In the latter lessons question and answers related to the information and, often, solutions contained in the reading passage are presented. Samples of these exercises follow:

Samples (translations)

a) Please copy the following words and read them:

mercy _____

kindness _____

service _____

crippled person _____

deaf _____

blind _____

health station _____

b) Please complete the words in the sentences and, then read the sentences.

ครอบครัว มี พ่อ_ แม่ มี ลู_

พ่อแม่ ค้_ง ดู_ล ลูก

(a f_mily has a fath__, a __ther and child___.

The father and mother m_st ra_se the children).

c) Fill in the following sentences with the appropriate word from the following list: vegetables, beans, paddy, rotation, grow, have, year, more.

1. During the planting season we grow _____.

2. After the planting season we grow _____ or other _____.

3. We plant rice and grow vegetables in _____ all year long.

d) Answer these questions.

What foods have high nutritional value?

- -

What foods make us strong and healthy?

- -

What foods have the same nutritional value as meat and eggs?

- -

All the lesson components described above are now contained in the cards distributed by lesson to form the basic text.

9. Numeracy drills. The last component of each lesson concerns basic computation skills. Once basic skills in addition, subtraction, etc. have been drilled, the lesson includes problems. The vocabulary and often the substance of these arithmetic problems are related to the key words and subject matter used in the early parts of the lesson. Many of these exercises are now structured along the lines of those found in programmed texts. The learners receive separate workbooks containing these drills at present, but will soon receive the numeracy exercises on cards to be included with the other lesson components in their basic text.

Teacher's handbook

These handbooks contain replicas of the lesson cards (illustration or photograph, key words, and reading passage) distributed to the learners plus the lesson rationale, objectives, and suggested issues for discussion. Several examples from the current version of this handbook are presented below.

Samples (translations)

1. Lesson on crop rotation

Rationale. It has been observed that after harvesting paddy farmers are likely to leave their fields idle. Explanations often refer to the individual farmer's ignorance

of the waste involved or his indifference to the need to utilize fully and care for land he does not own. Other factors are obviously involved and equally important. Nonetheless, the result is that farmers lose opportunities to add to their income and maintain the fertility of the soil by leaving their fields idle during the period between harvest and the next planting season.

Objective. To encourage the learners to become aware of the possibilities they have to earn more income and maintain soil fertility by cultivating their fields throughout the year and rotating crops.

Suggested issues for discussion

a) Is it true that farmers can add to their income and maintain soil fertility by planting throughout the year and rotating crops? Why? Why not?

b) Why do some people leave their fields idle after harvest? What are the obstacles preventing them from doing otherwise? How can these obstacles be overcome?

2. Lesson on family planning

Rationale. Many families in Thailand are faced with problems caused in part, at least, by low income. Invariably, members of large families with insufficient earnings must deal with significant physical and psychological hardships.

Objective. To provide a forum for the adult learners to discuss the advantages and disadvantages of large family size in light of their own needs and concerns.

Suggested issues for discussion

a) Do you agree with the saying 'If you have many children, you are likely to be poor'? Why? Why not?

b) Reflect on your current circumstances. Do you want to have a large family or a small one? Please elaborate.

The main purpose of the Teacher's Handbook is to suggest ways in which the teachers can conduct their classes without relying on the technique that has been most familiar to them since childhood and has been utilized in all prior learning and teaching experiences, i.e., lecturing.

Evaluating learner performance

The regulations issued by the Ministry of Education in 1973 regarding the Adult Education Functional Literacy Programme prescribes the following criteria for determining whether or not a learner 'passes' the course and receives a certificate:

> "The student will attend class for at least 70 per cent of the total class time in any semester. In cases when a student does not meet this stipulation and the teacher considers that individual to possess sufficient knowledge and motivation, the teacher may provide make-up instruction sessions so that the individual can meet the minimum attendance requirement. Only at that time may the student be recommended for a certificate attesting to his or her completion of the programme.
>
> During the course of the semester, a minimum of three examinations prepared by the course instructor will be administered in each of the following areas; Thai language, mathematics, subject matter knowledge, and attitude change. These examinations will be diagnostic and the results used for course improvement."

The regulations also call for the use of pre- and post-testing. The pre-test, prepared by regional or provincial education supervisors, is composed of four parts; Thai language and arithmetic achievement, general knowledge and information, and attitudes about various family life matters.

The post-test, identical to the pre-test, is administered by the same supervisors. The objective of this test is to measure gains through pre- and post-test differences. These results, like those on the tests prepared by the course instructors, are not to be used in deciding whether or not a student is to receive a certificate. That decision is based largely on attendance records and, to some extent, on the teacher's independent evaluation of an individual's literacy, numeracy and problem-solving skills.

Research on the functional literacy programme

In 1971 the Adult Education Division requested an outside research committee[1] to make an independent study of the

1. The committee was chaired by Kamol Sudprasert, with Chalong Boonyanan as secretary.

functional literacy programme in Lampang and Phrae provinces, specifically the learning gains achieved by the participants. Results showed that reading ability increased significantly from an initial score of just over three to a final score of just over six on a nine point scale. At the same time, mathematical ability increased from 3.7 to 6.5.[1] Attitudes, measured using a Likert scale, were found to have changed significantly in a positive direction in 18 of the 22 concepts. Changes were most profound in concepts related to family planning and agricultural practices.[2]

However, in 1974 another independent study[3] showed the average Thai language and mathematical skills of functional literacy graduates to be lower than the national average for 4th grade students in the school system bur higher than that for 3rd grade students.

In 1975 two additional research efforts were undertaken. The first[4] indicated that (1) the literacy retention rate among functional literacy programme graduates was lower than that of grade IV graduates from the regular school system (both groups being tested three years after graduation) and (2) the literacy retention rate among both functional literacy and grade IV graduates residing in communities with a Village Newspaper Reading Centre was greater than those without a Centre.

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1. The reading test measured abilities ranging from recognizing the alphabet (1) to reading complex sentences (9). The mathematics test, similarly graduated, measured abilities ranging from recognizing symbols (1) to solving complex problems (9).

2. For a full description of these efforts and findings see Adult Education Division, Department of General Education, Ministry of Education *Report on the Evaluation of the Adult Education Functional Literacy Programme in Lampang and Phrae provinces*, 2514, mimeographed. (in Thai)

3. Somsong Asawagoon. *Literacy levels of graduates of the FL programme*. Bangkok, Chulalongkorn University, 1974. (Master's thesis in Thai)

4. Kulab Wangdeekul. *Literacy retention among graduates of the FL program*. Bangkok, Chulalongkorn University, 2518 (1975). (Master's thesis in Thai)

A second more extensive effort involved the National Education Council, Office of the Prime Minister and the Adult Education Division.[1] Sampling throughout the four major geographical regions of Thailand, this research was completed in early 1977. Among its findings were: (1) the reading, writing, and mathematical abilities of functional literacy graduates were acceptable (regular school grade level equivalents were not determined); (2) Northern students scored lower in language skill areas than students from the South and Northeast; (3) individuals who had never studied before scored lower than those who had; (4) male students scored higher than female in all areas; and (5) learners residing in areas with a Village Newspaper Reading Centre scored higher in reading skills than those without a Centre.

Curriculum and materials revision

There have been no specific research studies to validate the curriculum content of the programme other than the survey described in Part I. Moreover, the Division has lacked both the personnel and resources required to establish and maintain a highly structured formative evaluation programme. Nonetheless, it has received through periodic follow-up meetings with functional literacy teachers and supervisory personnel. Conducted by provincial supervisors and often Division staff, these meetings have evolved into wide-open discussion sessions, using techniques similar to those the teachers are supposed to follow in their classes. Additional feedback has been obtained from field workers and from other government agencies who have voluntarily taken an interest in the programme as they have viewed it as an important complement to their own efforts.

Guided by inputs from these sources, the Division has made annual revision in the functional literacy materials and, to a lesser extent, in the curriculum. Curricular changes have been related for the most part to the content of specific lessons, particularly those concerning agriculture, and have resulted in refinements designed to increase relevancy. At present, however, the Division is planning a major alteration in the curricular structure. The first

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1. For a report on this study see Thailand. Office of the National Education Council and General Education Department, Ministry of Education, Thailand. *Research report on the functional literacy program: Part I: An evaluation of reading, writing, and mathematics and general educational conditions.* Bangkok, n.d.

project to be affected by these changes will be the functional literacy programme for people living in the hill areas within the Eighth Educational Region. Later, as the Regional Centres currently under development begin to operate at planned capacity, similar changes will be incorporated in all functional literacy programme.

The new curriculum for the hill areas will consist of a core set of concepts related to problems shared by all the people, Thai as well as tribal living in these areas.[1] This core will amount to approximately 60 per cent of the total curriculum. The remaining 40 per cent will be devoted to problems or issues common to specific cultural groups or localities. The ultimate goal is to offer sufficient choices so that local administrators, together with teachers and, perhaps, the learners themselves, can select for the remaining part of the curriculum lesson cards that pose problems and concepts relevant to the unique circumstances of the locality.[2]

The Division has revised and reprinted the functional literacy text each year since the programme began. Major changes during the seven-year period have included, *inter alia;*

- increasing the size of the print and illustration (1972-73),
- using more photographs (two-colour and multi-colour) than line drawings (1974, 1976),
- selecting key words which convey the desired concepts more clearly, but are less value-laden (1974, 1976, 1977),

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1. Originally, this project was planned to focus exclusively on the three most populous tribal groups: the Meo, Yao and Karen. During the first year of operations (1976-77) it became apparent to Division and Department planners that such an approach worked against one of the programme's critical goals; political, social, and economic integration. By providing services exclusively for members of these tribal groups and ignoring the Thais and other tribal peoples living nearby or in the same village, the programme was offering a potential source of conflict among these people.

2. The Hill Tribes Division of the Social Welfare Department has adapted a similar area approach for its development programmes.

- simplifying exercises associated with the reading passage (1977), and
- incorporating the language and arithmetic drills into the basic text (1977). (Previously, separate workbooks existed for each).

Revisions in the teacher's handbook are similar to those made in the text with respect to key words and the like. In addition, two major changes have been made. First, after the initial year the teacher's handbook was revised to include a replica of the lesson card distributed to the learners as well as the special instructions and issues and background information for each lesson. Second, the new handbook under preparation includes specific guidelines to assist the teachers in their efforts to encourage learners to consider more deeply factors related to themselves and their society and environment before making decisions as to how to solve a problem.

Conclusion: Current and future efforts in programme revision

Division planners and specialists are currently focusing their concerns on the following aspects of the functional literacy programme.

1. Teacher training. Observations of the past seven years indicate that, in general, a teacher who understands and is committed to the instructional process - its philosophy and goals more than the actual steps it involves - can easily overcome inadequacies in content relevance or the tendency of some lessons to impose solutions. On the other hand, teachers who do not share such an understanding and commitment can have great difficulties even when there are no structural or content flaws in a lesson. As a result, the Division has in the past several years placed a high priority on its teacher training activities and approaches. Currently, a model is in use which is based on the same *khid pen* instructional goals that teachers are expected to promote in their classes and utilizes the same processes to achieve them.[1] Moreover, plans call for using this model or various adaptations of it for training adult education workers at all levels.

1. An English translation of the training handbook in which this model is used is currently being prepared for the Unesco Regional Office for Education in Asia and the Pacific.

There is a growing recognition, however, that some of the problems encountered with teachers can not be adequately addressed by training activities that will always be limited in duration and, perhaps, follow-up by the availability of financial resources and qualified supervisory personnel. Since many reoccurring problems tend to fall under the general category of teacher attitude and commitment, Division officials are now viewing them more as concerns for recruitment than training.

2. Content relevance. While the Division has sought ways of making curriculum content more relevant to learner and community needs, these efforts have been hampered by highly centralized curriculum approval mechanisms and concerns with standardization. However, as indicated above, in the near future approximately 40 per cent of the functional literacy curriculum will vary from region to region and, perhaps, require approval at the regional rather than the national level. Such reforms, while important, will in themselves be insufficient. Ultimately, relevance can only be achieved to a satisfactory degree when teachers and learners are encouraged to adapt the issues posed in each lesson to their particular needs and seek, on their own, the necessary resources, informational and otherwise, they require to resolve those issues. At present there are instances in which some individual teachers and their classes are undertaking such adaptations.

3. From *Khid pen* to *Tham pen*. Certain Thai educators have offered the suggestion that the functional literacy programme should expand its *khid pen* goal of providing adult learners with encouragement to think through issues and their solutions well to include motivating these learners to take action to resolve the issues (*tham pen*).[1] To accomplish an expanded goal of this kind will necessitate the co-ordination of the field work of the Division with other government rural service agencies. The newly established provincial lifelong education centres and particularly their inter-agency advisory committees offer mechanisms for close co-ordination at the field level.

4. Formative programme evaluation. The current reform and expansion effort, sponsored in part by an IBRD loan, will provide the Division with the additional resources and trained personnel it requires to develop more systematic feedback

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1. *Tham pen:* to know how to do.

and programme evaluation systems. At the field level Provincial Lifelong Education staff (averaging approximately 30 people) will provide the manpower for supervisory and data-gathering visits. With respect to the technical aspects of this work, the Regional Centres will share much of the burden that had previously fallen on a small central staff.

The Division regards the challenges it faces in this area as being among its most significant. The technical problems and those related to the administration are not however considered so serious as those related to attitude. More specifically, the Division is aware that a 'programme evaluation consciousness' which does not equate evaluation with inspection must be established. To these ends, a series of staff training activities on evaluation (and in accordance with *khid pen* processes) is currently in the advanced planning stages, with the first scheduled for December 1977.

In conclusion the Division feels it has some experiences, both successful and less-successful, to share with other countries who attempt, in practice, to put their literacy goals within reach of the individual. Specifically, these experiences relate to programme planning, curriculum and materials, and instructional and teacher training processes. While the Division feels it still has much to learn in these areas, it would be most interested to learn from others' experiences in programme evaluation.

Appendix I

The Functional Literacy Curriculum

I. Agriculture

Existing village conditions	Potential problems	Curriculum concepts
1. Most people engaged in agriculture are not proud of their occupation.	1. Because villagers have negative attitudes toward farming, they are more likely to seek other work than to try to find ways of becoming more successful farmers.	1. Most Thai people are engaged in farming. Agricultural products earn more income for the country than any other industry. The farmer, therefore, is important to the country.
2. Most farmers are not aware of the sources where they can get information on improved techniques, seeds, etc.	2. Most farmers use traditional agricultural techniques and do not attempt to improve on them.	2. If the farmer follows available advice on farming methods, he should be able to increase his production.
3. Many farmers leave their lands idle once they have finished harvesting their paddy.	3. Agricultural production is low. Farmers do not earn sufficient income.	3. Farmers should use their land all year round. By rotating crops such as corn and other vegetables, farmers can increase their income. Legumes are especially recommended as they help restore certain soil nutrients.
4. Farmers do not use fertilizer because they do not understand its value.	4. Poor yield.	4. Man eats food; rice consumes fertilizer. Fertilizer is food for plants, helping plants to grow better.
5. Farmers do not know the various types of and techniques for using fertilizer.	5. The use of fertilizer is limited and, when it is used, it is often used improperly.	5. There are two general types of fertilizers, chemical and natural. Natural fertilizer includes decomposed and green manure. Readily available natural fertilizers provide food for plants. Manure should not be used fresh. It should be allowed to decompose or ferment. Chemical fertilizer should be used under a specialist's direction.
6. Farmers do not use or know how to use chemical fertilizer.	6. The use of fertilizer is limited causing low yield and poor soil.	6. Chemical fertilizer should be applied three times: at the time of growing seedlings, at ploughing and raking, and before the plants bear grain which can be eaten or used to grow new rice stalks. Too much chemical fertilizer causes soil acidity and wastes money; too little application is ineffective.

I. Agriculture (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
7. Farmers burn rice stalks after the harvest to make ploughing easier.	7. Rice stalks can become natural fertilizer.	7. Burning rice stalks destroys a source of topsoil nourishment, but should be done when mice, aphids and other pests exist.
8. Most farmers grow the same kind of rice for years, because they do not realize that different varieties of rice have different qualities and yields.	8. The potential yield of agricultural crops is greater than the actual yield.	8. Good seeds produce more rice. Good seeds can be identified by characteristics such as long, straight, hard and unchalky grains. A solution of 5 kilos of salt in 4 gallons of water should be used to test the quality of seeds. Rice seeds which sink are strong and will grow fast; these should be selected for seedlings.
9. Farmers, in general, do not take measures to eradicate pests and insects which destroy their crops.	9. Crops are ruined by pests and insects.	9. Seeds should be treated with insecticides before storage.
10. Section currently under revision. Original condition concerned the spacing of rice seedlings during transplanting. However, with new rice varieties, the question of spacing may no longer be a problem.		
11. Farmers still do not use techniques which increase crop yield: the application of fertilizer, eradication of pests, and proper use of irrigation	11. Low yield	11. The eradication of pests, insects, and plant disease; proper use of irrigation; and proper application of fertilizer will enable the rice to grow well and yield a better grain.
12. Insecticide can cause illness and death for both people and animals if the users do not follow the instructions related to necessary precautions, proper equipment, and proper storage.	12. Users of the fertilizer may be poisoned and die.	12. The proper use and dangers of insecticides and other disease killing drugs should be thoroughly understood before application. These chemicals should be well kept away from people and animals.
13. People do not know how to use medicine and first aid techniques, nor how to store medicine safely.	13. People can become ill from improper or accidental use of medicine, and even die.	13. People should learn how to use medicine and how to store it so that it does not endanger people or animals. Insecticides used on rice crops are dangerous. Before spraying, we should check that the sprayer does not leak. While spraying, we should stand upwind and cover our noses and mouths with a cloth. After spraying, we should not smoke and should take a bath with soap. Also, we should wash our clothes thoroughly.
14. A thin rice stalk, caused by a shortage of water when the rice is bearing its spike, results in low yield.	14. Low yield and poor quality of rice.	14. When the rice is bearing its spike, care must be taken to keep water at the proper level; otherwise a low yield and poor quality of grain will result.

I. Agriculture (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
15. Harvesting at the wrong time causes low quality rice.	15. Low quality rice.	15. Spikes are full-grown when the lower part of each spike turns yellow and the end part to the middle of the leaf turns dry. Reaping before the grain becomes fully developed results in a thin, easily broken grain. Over-ripe spikes yield less rice, for many grains may fall off before reaping.
16. Carelessness during harvesting and storage causes different grades of grains to be mixed; this lowers the quality of the rice.	16. A poor quality of rice reduces profits.	16. Quality rice, which can be sold at good prices and is in demand, must contain only one grade of grain, not a mixture, and be clear of soil, pieces of rice stalks, and other foreign matter.
17. A barn which is dirty and has much moisture causes diseases to develop in the rice grains, breeds insects and makes the rice rot.	17. Rice stored in a dirty, humid barn can carry disease. Insects and mice damage the quality of rice.	17. Barns should be clean and sprayed for smoked with insecticides before storing paddy in them. This protects the paddy from diseases, insects and mice. Moisture may cause diseases in rice grain, which can result in death for those who consume it.
18. Farmers do not use labour saving devices because of their high prices. They do not know how to combine their capital to purchase machines for ploughing, threshing, and pumping water.	18. Limited utilization of agricultural labour-saving machines causes a waste of manpower and low yields.	18. Labour-saving devices, such as tractors and threshing machines are more efficient than manual labour; they save time, energy and contribute to greater productivity. Farmers can join together to buy machines which will help reduce the purchase cost for each individual farmer.

II. Health

Existing village conditions	Potential problems	Curriculum concepts
1. Most villagers do not take adequate precautions against sickness; this is an obstacle to earning a living.	1. Illness causes unhappiness and creates an obstacle for earning a living.	1. Health is the most important treasure; healthy people are happy and are able to earn a better living.
2. Most people do not realise the importance of nutrition and cleanliness for good health. Insufficient consumption of food causes illnesses. Unhygienic and untidy surroundings also can be a source of illness.	2. People eat unbalanced diets and live in unsanitary surroundings.	2. An unbalanced diet, communicable diseases and an unsanitary environment cause sickness in people.
3. The same food is eaten every day, just to prevent hunger but	3. Eating with no consideration of its nutritional	3. Eating the nutritious foods the body needs makes men and women healthy

II. Health (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
without considering its nutritional value. For example, when nutritious fruits are abundant, people often ignore them.	value may cause malnutrition.	and strong. A person's daily food should include rice, meat, eggs, vegetables and fruits.
4. People do not know alternative sources for needed nutrients, such as protein. For example: green beans, peanuts, or soya beans can replace meat.	4. People consume an inadequate amount of protein.	4. Eating meat and eggs makes men and women healthy and strong; increasing their immunity against disease. When meat and eggs are not available, green beans, soya beans and peanuts can be used instead.
5. People enjoy eating partially cooked or raw meat and fish dishes such as Lab, Lue, Goy. They like the taste and believe such dishes are nutritious.	5. Partially or uncooked meat and fish can carry parasites such as trichina, liver fluke, and tapeworms.	5. Meat and fish are apt to contain germs or parasites such as trichina, tape worms, and liver flukes. It is therefore recommended that meat should not be eaten raw, but should be cooked well so that germs and parasites will be eliminated.
6. Most people regard fruit as unimportant to their health. When eaten, fruits are not thoroughly washed, but just brushed off by hand.	6. Insufficient consumption of fruit and vegetables which provide important body nutrients.	6. Vegetables and fruit are important to us; they make our bodies fresh and strong, our complexion fair, and they help regulate bowel movements. Daily consumption of vegetables and fruit is recommended, but washing is necessary before eating.
7. Most people do not realize that proper sanitation and tidy surroundings can prevent illness. Specifically, illness can be caused by wearing dirty clothes, improper storage of mosquito nets, and improper garbage disposal.	7. Poor sanitation breeds mosquitoes, rats, and flies which carry diseases harmful to humans.	7. A home which is clean is a comfortable place to live and is free from disease. An untidy, dirty home, with garbage, animal excrement, and holes of water in the ground, is a breeding place for mice, flies and mosquitoes which cause diseases.
8. Villagers go to the bathroom wherever convenient; they see no need to have lavatories inside the house.	8. The absence of using lavatories causes communicable diseases such as dysentry, cholera and intestinal fluke.	8. A lavatory, convenient for use any time; should be provided and be free of bad odour and flies, hence from intestinal worms.
9. People raise animals underneath their houses.	9. Keeping animals under the house causes dirtiness and unclean air, and breeds mosquitoes.	9. A cattle enclosure or fowl house should not be kept under the house, for it may cause dirtiness, bad odour, and disease, and make a nuisance. Pens should be made away from the house; however, if it is necessary to make them under the house, they should always be kept thoroughly clean.
10. Most people build wells improperly. They do not know	10. Improper well construction causes	10. A good well should be about 30 metres from a lavatory, should be built with

II. Health (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
the correct distance from the lavatory to locate the well, to ensure clean water; do not use the proper means to fetch the water; and do not cover the well to protect the water from litter and other dirty objects.	communicable diseases such as dysentry and diarrhoea.	casings, and should be covered to guard against dirt. To bring up water, one receptacle should be provided especially for this purpose. Water taken from such a well is suitable for drinking.
11. Because it is convenient, most people throw litter into the rivers or canals.	11. Litter thrown in the canals makes the water dirty and shallow. Such water can breed contagious diseases.	11. Litter, dead animals and other things should not be thrown in rivers, springs, canals or marshes, because they may make the water dirty, make the river bed shallow, and cause communicable diseases. Places should be provided for collecting litter; then it should be buried, burnt or used as decomposed fertilizer.
12. People often sell diseased animals as food, because they do not want to waste the meat. However, they do not realize that this may cause disease in humans.	12. The meat of diseased animals contains germs and bacteria which cause communicable disease if consumed.	12. Diseased animals should not be sold or used as food for they can cause communicable disease. Dead animals should be buried or burnt. For burying, the dead animal should be placed in a hole at least one metre deep and should be sprinkled with lime and ash before covering with soil.
13. Most people do not know how to prevent disease nor how to make use of hospital and public health facilities. People are brought for treatment only after illness occurs.	13. People may die because they do not know how to prevent disease nor how to make use of hospital and public health facilities.	13. As a precaution against disease, innoculations and vaccinations should be taken as often as official notices recommend. During severe epidemics such as cholera or typhoid, sick persons should be brought to the hospital at once and quarantined. Excrement of the sick persons should be sprinkled with germicide, lime or ash, and should be buried to prevent further spreading of the disease. Clothes and other articles should be boiled to kill disease germs.
14. Because leprosy, yaws and tuberculosis were believed to be incurable diseases, people with these diseases have been left alone and not treated. Still today, villagers are unsure of the proper treatment for these diseases and of how	14. People with leprosy, yaws, tuberculosis are not properly treated.	14. Leprosy, yaws, tuberculosis, and venereal disease can be cured. Persons with the disease should be brought to a health centre, or hospital. Sharing food and articles with others must be avoided to prevent further spreading of the disease.

II. Health (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
to recognise their symptoms. They also do not realise that by sharing articles with others, illness can be transmitted.		
15. People view being bitten by a mad dog as a common life occurrence. Therefore, they do not realize its potential danger and do not see the necessity for having rabies injections.	15. People bitten by mad dogs may contract rabies, which cannot be treated.	15. Hydrophobia is a severe disease; there is no real cure, but injections can prevent it. Anyone who is bitten by a mad dog or cat, or by an animal even suspected of rabies, should be brought at once to the health centre or hospital for treatment.
16. If they do not plan, couples have problems after marriage in matters of clothing, feeding, and providing for their families and homes. If parents and children do not eat properly, they will have poor health and the children may not be able to go to secondary school.	16. Children are not well cared for.	16. Before marriage, preparation and planning related to earning a living, having babies, and caring for and educating children will help a family to live well and to stay healthy.
17. Before marriage today men and women do not go to the doctor for a physical examination. They do not know that diseases such as syphilis and tuberculosis are hereditary and can cause their children to be unhealthy, both physically and mentally.	17. Undetected diseases, such as syphilis and tuberculosis, can be transmitted to the children.	17. Before marriage, men and women should go to see the doctor for a physical examination. If a disease is detected the woman should receive full treatment before conceiving a baby. Then, the baby may be born healthy and strong.
18. Some couples want to have a limited number of children to suit their economic situation, but do not know where to seek advice on how to do so.	18. Couples are not capable of determining the number of children they would like to have.	18. Married couples who are not ready to have their first child (because of insufficient income, physical unfitness for pregnancy, or the desire to postpone pregnancy); those desiring to have a limited number of children; or those who wish to stop bearing children can choose a birth control method suitable for them with the advice of the maternity office, health centre or hospital.
19. Some families have too many children, which creates a difficult economic situation, unhappiness, unhealthy babies, and other kinds of problems.	19. Babies are unhealthy and other related problems.	19. A family of moderate size is a happy family, with a better means of living and better care for its children.

II. Health (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
20. Frequent pregnancy causes both mother and baby to be unhealthy, thin, and pale.	20. Mothers and babies are unhealthy.	20. Frequent pregnancies cause physical unfitness, faster aging and susceptibility to sickness; the baby born of such mothers will be unhealthy.
21. Because of untrained midwifes, giving birth is often dangerous in the village and may result in death for the mother and for the child.	21. During birth, a mother and her child are susceptible to dangers.	21. A mother who has been pregnant for two months should receive a physical examination and advice on health care. For safety's sake, a pregnant mother should bear her child under the care of the doctor, nurse, midwife, or a traditional midwife who has been officially trained.
22. Villagers usually believe that eating meat and fat during the pregnancy causes difficulty in childbirth, and that hard work makes it easier.	22. Good food during pregnancy results in a healthy baby. A pregnant woman should do some work in order to keep her physically fit, but should not work hard. She should also take care not to fall down nor to be struck with anything which might cause her to abort.	22. Eating good food helps to strengthen a pregnant woman and ease the birth of her baby. Food suitable for a pregnant woman includes: meat, eggs, beans, vegetables and fruit.
23. In the villages, a bamboo knife is used to cut the umbilical cord.	23. Using a bamboo knife to cut the umbilical cord may cause an infant to contract tetanus, which brings death.	23. Using a bamboo knife or an ordinary knife to cut the umbilical cord of the new-born baby may cause tetanus, because germs may enter the child's body through the cord. Instead, scissors boiled for at least half an hour should be used for this purpose.
24. After giving birth, most mothers believe that eating meat, eggs, and vegetables, and drinking milk, cause illness. Rice with salt is eaten instead.	24. An unhealthy mother produces milk that is small in quantity and not nutritious.	24. For one month after giving birth to her baby, a mother should not work hard so that she may regain her strength and her womb may return to its place. A mother who has given birth should eat nutritious foods, for instance: meat, milk, eggs, vegetables, and various fruits, which help to give strength to the baby through its mother's milk.
25. Mothers often feed their new-born babies with inappropriate foods, such as rice, unwashed food, and unboiled water from the wells.	25. Children may easily contract disease and become unhealthy.	25. A new-born baby should drink only mother's milk and boiled water, for other food is too difficult to digest and may cause stomach problems. A child who is over three months old can be given soft foods which are

II. Health (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
		easily digestible, such as ground rice, mashed egg yolk, ground rice with vegetables soup, fruit juice, and ripe bananas.
26. Most mothers do not know the proper way to breast feed their babies. Mothers do not clean their breasts before feeding or use unclean water to do so. Sometimes they save left-over milk to give to their babies.	26. Improper breast feeding may cause illness to the babies.	26. If the baby is breast fed, breasts should be cleaned before feeding. If powdered milk is used, the bottle and nipple should be cleaned with boiling water. Milk should be prepared in proper quantity. Left-over milk may cause stomach problems and should not be used.
27. Babies under one year old are not taken to the public health service or hospital for necessary innoculations.	27. Babies are susceptible to and may contract diptheria, tetanus, and whooping cough which cause death.	27. Babies should be taken to the health centre or hospital for necessary innoculations. When the baby is three months old, vaccinations against diptheria, tetanus and whooping cough should be had. A baby less than one year old is especially susceptible to such diseases.
28. Children are not protected from being bitten by mosquitoes because parents do not realize that this is a source of illness.	28. Children may catch malaria and hemorrhagic fever through mosquito bites.	28. A baby who has been bitten by mosquitoes may catch malaria or hemorrhagic fever. To prevent mosquito bites, babies should sleep under the mosquito net during the day and at night.
29. Most children like to put their fingers, seeds, pins and coins in their mouths.	29. Children may catch the diseases or be harmed by the objects they put in their mouths.	29. Fingernails and toenails should be cut. A child should not be allowed to put his hand or anything else in his mouth, for this may cause deformed teeth and disease. Fruit seeds, pins, and coins, also should not be put in a child's mouth because they may be swallowed and cause the child to suffocate.
30. Most children in the village do not use soap to wash their bodies and hair, do not use a tooth brush, and lack clothing.	30. Not using soap when taking a bath leaves the body unclean and causes skin infections. Lack of clothing causes lung diseases.	30. Babies should have a bath with soap at least once a day, and should have their hair occasionally washed. This will help to keep their bodies clean and free from skin disease. Babies should always wear clothes to keep themselves warm and healthy.

III. Economics

Existing village conditions	Potential problems	Curriculum concepts
1. In general, only the head of the family works to earn money for the entire family's needs. This is a waste of man power.	1. All the members of a family capable of working to augment family income do not do so.	1. A family must have sufficient income to live well. The larger the family, the greater the expense. Everyone able should help to earn the family income, so the family can live as comfortable as possible.
2. After the rice harvest, farmers do not use their months of free time productively. They engage in gambling activities such as cock fights, bull fights, or fish fights, rather than income industries such as carving, weaving or pottery, which could help to increase their incomes. Non-productive use of free time contributes to family poverty.	2. If a farmer's free time is used productively for himself and his family, harmony, as well as better economic conditions, can be achieved.	2. The major portion of Thailand's income is derived from agriculture. In addition, other fields contribute to the wealth of our country, including textiles, wood carving, weaving, pottery, lacquer work, umbrella making etc. If free time is spent on such activities a family may gain a greater income.
3. Agricultural produce, such as bananas and pineapples, which is not consumed or sold is often thrown away. People do not know how to make dried bananas or preserved pineapples so that the surplus fruit may be used productively.	3. Surplus food which could be preserved is often thrown away.	3. Income can be increased through making and selling processed agricultural products such as: dried and mashed bananas, cotton cloth, oil from cotton seeds, and fertilizer or animal food from seed residues.
4. When establishing commodity prices, villagers do not consider the cost of investment and labour. They accept the middle man's offering price without question so that their commodities can be sold quickly.	4. Villagers sell their produce for prices which are too low.	4. To set commodity prices, producers should take into account their initial cost of investment and its return. Their profit should provide enough for spending and for further investment. The cost of investment includes the following items: land, material and equipment, labour, construction, etc.
5. Farmers today work independently; they do not assist each other nor work co-operatively on a specific project. Instead of helping each other irrigate their farms, people depend on the rain. Instead of joining together to buy fertilizer and machines, people buy them independently; which is much more expensive.	5. Because farmers do not co-operate, they are unable to purchase labour-saving machines to assist in their work.	5. Farmers may pool their capital or labour for the purposes of investment, purchasing, and generally improving their work.

III. Economics (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
Each one sells his own produce to the middle man, who in most cases is unfair to the farmer.		
6. Most farmers do not know how to use banks. They borrow money from private money-lenders, agreeing to pay them back in paddy. However after the harvest, some farmers go bankrupt because all their paddy must be used to cover their debt.	6. Money lenders charge high interest rates, which reduces the money available for farmers to live on and to invest.	6. When borrowing money, less interest is charged by banks than by private money-lenders. By using banks, unfair treatment can be avoided.
7. Farmers continue to grow the same crops, even when the market demand for such products has diminished or disappeared. Therefore, some times the produce cannot be sold. Another problem is that once farmers receive a high price for a certain crop, everyone grows the same crop and creates a market surplus.	7. Produce cannot be sold because farmers do not recognize consumers' demands, and adjust their production to them.	7. The price of any product is dependent on the consumers' demand for and the available supply of the product. A large supply will cause falling of prices. Producers should follow price movements in the market or in government sources in order to make decisions on their levels of production according to market demand. These products are likely to get a good price.
8. Most farmers do not have facilities for storing their produce before selling it. Therefore, when the middle man's buyers offer a price, the farmers are obliged to accept it even though it is low. For example, a farmer may get 25 satangs per egg from a buyer, but one baht if he sells it in the market.	8. Farmers get low prices for their produce.	8. Selling goods that will pass through many middlemen before reaching the retail market will bring less income, for each middleman wants to get a profit. To get a good price, a farmer should deal with the middlemen closest to the retail market.
9. Thai people like luxury and comfort. They drink after work and would buy a refrigerator instead of changing from a thatch to galvanized zinc roof or making other household improvements. They spend money uneconomically and frivolously.	9. Spending money on luxuries creates poverty and limits the improvements of one's standard of living. Such spending also leaves no money for emergencies or other needs which may arise.	9. Food, clothing, medicine, shelter, education and so on, are necessary for living and must be provided through money earned. It is therefore necessary to budget money for these things, and to save the rest for necessities which may arise.

III. Economics (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
When earning enough money, people do not save any for future needs such as sickness or their emergencies. Therefore, some suffer, take only local medicine, or even die because there is not enough money for hospital or public health expenses. The wages of labour do not increase as prices increase; therefore labourers cannot save money.		
10. Most people keep their money at home or exchange it for gold. Money not deposited in a bank can be lost through theft or fire.	10. People lose money because of burglars and fire.	10. Keeping money at home is not safe because it may be stolen. Therefore, money should be kept in government savings banks or private banks. In this way, one will also receive extra money through interest.

IV. Civics

Existing village conditions	Potential problems	Curriculum concepts
1. The care and education of village children is unsatisfactory. Parents often spoil their children and do not teach them to be moral citizens.	1. Youngsters do not conduct their lives for the benefit of themselves or society.	1. A happy family is the family in which every member knows his duty and assumes his responsibility. For instance, parents should take care of child-rearing and educating; children should help their parents with household work and earning a living, and should behave nicely.
2. Houses in the village are untidy, dirty, and lack care and decoration.	2. An unpleasant environment is not a good home.	2. Beautification of the home through growing flowers and decorating trees or making fences from wood and trees helps to bring the family enjoyment and happiness.
3. Villagers do not co-operate on public works such as: construction of roads in the village, wells, schools, shelters, bridges and the care of public properties.	3. Public property is destroyed and unsuitable for use.	3. The progress of a village is dependent on the co-operation its members have given for building village roads, wells, schools, monks' dwellings, temple halls, bridges, etc. These properties bring progress and comfort to the village and belong to everyone. Since everyone is the owner of public property, he should treat it with care.

IV. Civics (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
4. Deforestation has increased in villages. People do not realise the importance of forests for creating rain and preventing floods.	4. Valuable forests have been destroyed. Therefore, great floods and timber shortages might occur in the future.	4. Natural resources, such as lakes and forests, are public property and are meant for common use. We should make proper use and take proper care of them. Forests provide moisture and prevent floods. Cutting and burning trees is one cause of drought. During heavy rains, land erosion and floods can cause loss of life and property. Springs (and other sources of water) provide water to rice fields when dams are constructed across them. Those who live upstream should not make use of the water solely for themselves, for it may deny water for those living downstream.
5. People do not separate sick and healthy animals, and they sell animals which have died of a communicable disease for food or give them to others.	5. Animals which have died of disease might transmit the disease to the people who consume their meat and cause them sickness or death.	5. Domestic animals with severe communicable diseases should be eradicated so that other animals may remain free from contamination. Prompt eradication of sick animals is an indication of one's concern for the community.
6. In some villages, disabled people are left at home or left to wander around and no attempt is made to help them to live like normal people.	6. Disabled people have to depend upon others for assistance.	6. A family with members physically or mentally handicapped by blindness, deafness, disabled limbs, neurasthenia, or feeble mindedness should take proper care of such persons. Services from foundations, organizations, and government agencies are available for these persons; for example, schools for the deaf, schools for the blind, schools for the feeble-minded.
7. Villagers are not aware of the duty of the phuyaiban (headman of the village) and the Kamnan. Therefore, they do not seek advice from these officials nor do they realize their responsibility for selecting suitable phuyaiban.	7. People do not know how to select a good phuyaiban.	7. The Kamnan is the head of the tambol (a group of villages). The phuyaiban is the head of a village. The kamnan and phuyaiban are official representatives in the tambol and the village respectively. Election of a well-behaved, honest, devoted person to the post of phuyaiban will help bring progress to the village.
8. Although Thailand has a democratic form of government, most villagers still regard government officials as	8. There is a gap between the people and government officials. People do not make use of	8. The governor is the head of province; the district officer (nai amphur) is the head of the district. Both the governor and the nai amphur are

IV. Civics (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
their masters. They hold these officials in awe and are frightened to seek them out for advice.	their right to obtain services from the officials so as to improve their lives.	responsible for seeing to it that government services reach the people and for providing for their welfare. Villagers should co-operate with officials to improve their village and province.
9. People live far apart because of geographical, historical, and governmental conditions and because of insufficient means for communication. People who live along Thailand's border do not sometimes know to which country they belong.	9. National unity does not exist.	9. Thailand has 71 provinces. Bangkok, the capital, is the home of the King and the Queen and is the seat of the government. We love Thailand because Thailand is our country. We love and respect the King and the Queen, because the King is the Head of the State and both are the centre of unity for Thai people.
10. Most people still believe that elected representatives are responsible for the construction of wells, schools, houses for monks, shelters for the village and temples. Some also believe that representatives can distribute things to the villagers. Therefore, the election of representatives often rests upon their promises to get money from the government for construction in the village.	10. Unfit representatives who do not work for the country are elected by the people.	10. Thailand is an independent country and has a democratic form of government; that is, government in which popular participation is possible by means of the election of representatives. Those who are entitled to vote should go to the polls and do so. A representative should be elected because he or she possesses knowledge, ability, good behaviour, honesty and public-mindedness, needed to peform the duties of legislating and of administrative control.
11. People still do not know laws such as those related to compulsory education, birth and death registration, tax payment, marriage licensing, identification cards, and reporting on communicable diseases.	11. Because people do not live according to the law, problems exist in administering the country.	11. A person should obey the law so that the country may exist in peace and order. The following duties are required of a Thai citizen: – enrolment in compulsory education – entrance to military service – notification of birth, death and change of address – payment of taxes to the State – registration of marriage – possessing and carrying an identification card – notification of severe communicable diseases – notification of incidents endangering the public welfare.

IV. Civics (cont'd)

Existing village conditions	Potential problems	Curriculum concepts
12. When they have free time villagers do not do anything but drink, go out, and spend money, which are unnecessary and not useful activities.	12. Spending free time frivolously causes physical unfitness, arguments, and other problems in the community.	12. Everyone should make the best use of his leisure time by reading, listening to the radio, watching TV, working on hobbies or playing games so that he may stay physically, mentally, emotionally and socially healthy.
13. Sometimes adult behaviour is an obstacle for teaching children to be good citizens. Adults may provide a bad example through immoral words and deeds such as cheating.	13. Adult behaviour does not set good examples for children to become good citizens.	13. Today's child is tomorrow's adult; the adult should set a good example for the younger generation so that the country will have better citizens in the future.
14. Many villagers are illiterate. Therefore, printed materials distributed by government agencies cannot be understood and have no practical use for improving living conditions.	14. Written materials, one of the most important sources of knowledge in the world, cannot be utilized.	14. Literacy is a means to knowledge and pleasure, a means by which man can make improvements in himself and his occupation, and keep abreast of the changing world. Reading and writing should therefore be practised regularly.

Appendix II

KEY WORDS USED FOR FUNCTIONAL LITERACY IN ADULT EDUCATION WORKBOOK

Card No.	Key words/phrases		
1	occupation	farming	important
2	civil service	improvement	paddy*
3	grow	rotation	income
4	fertilizer	beans	
5	paddy stock	eat	fertilizer
6	science	fertilizer	nature
7	agriculture	advice	
8	time	spread	fertilizer
9	burn	dry paddy stocks	
10	strain	good	not good
11	seed	strain	
12	store	protect	
13	young paddy stocks	water	
14	row	bush	
15	pest	water level	fertilizer
16	grain	lack (of) water	grain defect
17	harvesting		
18	directions		insecticide
19	store	insecticide	
20	spray	cover (mouth)	cover (nose)

* Underlining indicates repeated keyword/phrase

Card No.		Key words/phrases		
21	doctor	examine		
22	silo	paddy		
23	humid	yellow-grain		
24	sickness	unhappiness		
25	body	healthy		
26	benefit	food		
27	beans	eggs	meat	
28	worms			
29	wash	vegetables	fruit	
30	prepare	marry		
31	examine	body	safety	
32	advice	to have	child	
33	doctor	nurse		
34	method	suitable		
35	too many children	poor	enough	
36	frequent pregnancies		age quickly	
37	midwifery	give birth		
38	food	pregnant woman		
39	hard work	fall	abortion	
40	cut	navel		
41	rest	uterus		
42	food	good	milk	healthy
43	mother's milk	digest	easy	
44	wash	milk bottle	nipple	
45	suck	milk	left over	
46	vaccinate	inject	children	
47	net	protect	mosquito	

Card No.	Key words/phrases			
48	cut	nail		
49	bathe	shampoo	children	
50	income	leisure time		
51	change	goods		
52	decide	invest	profit	
53	group	co-operative		
54	bank	interest		
55	labour-saving device	rice farming		
56	co-operative	purchase		
57	goods	produce		
58	information	price	goods	produce
59	sell			
60	merchant	middle man		
61	purchase	goods	quality	
62	necessary	for	life	
63	save	deposit	money	
64	housing	pleasant	airy	
65	housing	clean	comfortable	
66	toilet	protect	flies	
67	smell	pen	patio	
68	water	well		
69	throw away	dirty		
70	bury	animal	deep	
71	pet	contagious diseases		
72	contagious diseases	vaccinate		
73	separate	sick person		
74	clothes	household articles	germs	

Card No.	Key words/phrases			
75	doctor	cure		
76	mad dog	bite		
77	family	live well	eat well	
78	duty	father	mother	child
79	kindness	cripple		
80	maintain	property	public	
81	rain	forest		
82	divide	water	dike	
83	Thailand	King	Queen	
84	capital			
85	govern	democracy		
86	elect	representative		
87	province		district	
88	Kamnan*	Tambon**	village headman	
89	respect	law		
90	notify	official		
91	registration	tax		
92	prevent	danger		
93	mind	leisure time		
94	adult	example	quality	
95	study	intelligent		
96	read	book		

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* The administrative head of a Tambon

** An administrative unit between the district and the village consists, on the average, of ten villages.

Appendix III

DATA SHEET QUESTIONNAIRE

1. Name _ _ _ _ _ _ _ _ _ _ _ _ _ _ Age _ _ _ (approx.) Village _ _ _ _ _ _

2. Married? _ _ _ When? _ _ _ How many children? _ _ _ _ _ _

3. Sex _ _ _ _ _ Sex of children _ _ _ _ _ Ages of children _ _ _

4. How long have you been living in this village _ _ _ _ _ _ _

   in this house? _ _ _ _ _ _ _ _ _

5. Write your name here (X if can't)

6. (For women) What utensils do you have in your kitchen?

   _

   _

7. Where is the nearest school? _ _ _ _ _ _ _ _ _ _ _ _ _

   Do your children go to it? _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

8. Where is the nearest doctor? _ _ _ _ _ _ _ _ _ _ _ _ _ _

   Do you go to him? _ _ _ _ _ _ For what? _ _ _ _ _ _ _ _ _

9. Describe a day in your life:

   Morning _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

   Afternoon _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

   Evening _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

10. What do you farm in:

    Summer _____

    Winter _____

    Rainy season _____

11. What foods do you buy in the market? _____

    _____

12. When do your children start working? _____

    Doing what? _____

13. Describe what you have in your house (furnishings and utensils) _____

    _____

14. Where is your local government? _____

    Who? _____

15. Describe how you cook rice (two ways) _____

    _____

16. Where do you get water _____

    What do you use it for? _____

    Who brings the water to the house? _____

    How often? _____

17. Describe how you feed a baby _____

    _____

18. (For men) What farm utensils do you have? _____

    _____